WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
IDAHO

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE.
and
IDAHO STATE RECLAMATION ENGINEER

Data included in this report were obtained by the agency named above in cooperation with the Comptroller of Water Rights of British Columbia, and Federal, State and private organizations listed on the last page of this report.

AS OF
MAR. 1, 1963

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Water Supply Forecasting Unit, Soil Conservation Service, P.O. Box 4170, Portland 8, Oregon.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RIGHTS BR., DEPT. OF LANDS, FORESTS AND NATURAL RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

DA... PORTLAND, ORE. 462

WATER SUPPLY OUTLOOK
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FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
IDAHO

Report prepared by

MORLAN W. NELSON Snow Survey Supervisor

and

J. ALDEN WILSON Asst. Snow Survey Supervisor

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WATER SUPPLY OUTLOOK for IDAHO

GENERAL SUMMARY - MARCH 1, 1963

The outlook for streamflow during the 1963 season is poor. Those rivers with adequate reservoir facilities and carry-over storage can make up for the low streamflow by drawing on stored water. The main stem of the Snake, Boise and Payette Rivers have excellent reserves of stored water. The smaller rivers throughout the whole southern half of Idaho, which do not have good storage facilities, are forecast to have critical water shortages for this season. There is a remote possibility that storms during March would change this outlook somewhat, and the April 1 snow measurements will represent the total snow pack for the year.

Snowfall during this season has been extremely light and spotted. There is an unusual elevation spread in snow cover. The high elevation snow courses have a better snow pack in relation to normal than the low and medium sites. As a result of the periods of warm temperatures during the winter, the low and middle elevation snow courses lost most of their snow cover and many throughout the state have the lightest ever recorded. In some cases, they are several inches of water lower than at any time during the period of record. The south slopes in general are either entirely bare of snow or have such a light cover that a few days of warm weather will melt it. The south slopes have been bare of snow practically all winter, resulting in the soil being unusually dry and able to absorb snow-melt and rainfall without a significant contribution to streamflow.

Soil moisture measurements made at forty-five sites, throughout the state, indicate an unusual pattern of soil moisture conditions. The high elevation

sites in general are unusually dry beneath the snow pack. At the low and middle sites, the soil was partially primed by rain and melting snow and then began to dry out. At this time these sites are below normal, but not as dry as the higher elevations. In many of our watersheds, soil moisture deficiencies are so great that the entire snow pack existing at this time can be absorbed by the soil. This situation increases the critical nature of the low water supply outlook in general for 1963.

Practically all of the small tributaries of the Snake River not having good storage facilities should prepare for critical water shortages. There are no more than two or three weeks remaining of this winter season in which to make a significant change in the water supply forecasts. Spring rains could eliminate one irrigation which would extend the water available for 1963. Soils in the valleys are dry and it will take more than average rainfall to eliminate one irrigation for this season.

Water users in general should make the most efficient use of their water even on rivers with good storage facilities because of the possibilities of a below normal water supply for 1964.

WHAT A FARM IRRIGATION SYSTEM MUST DO

by

Meader H. Wilkins, State Conservation Engineer
Soil Conservation Service

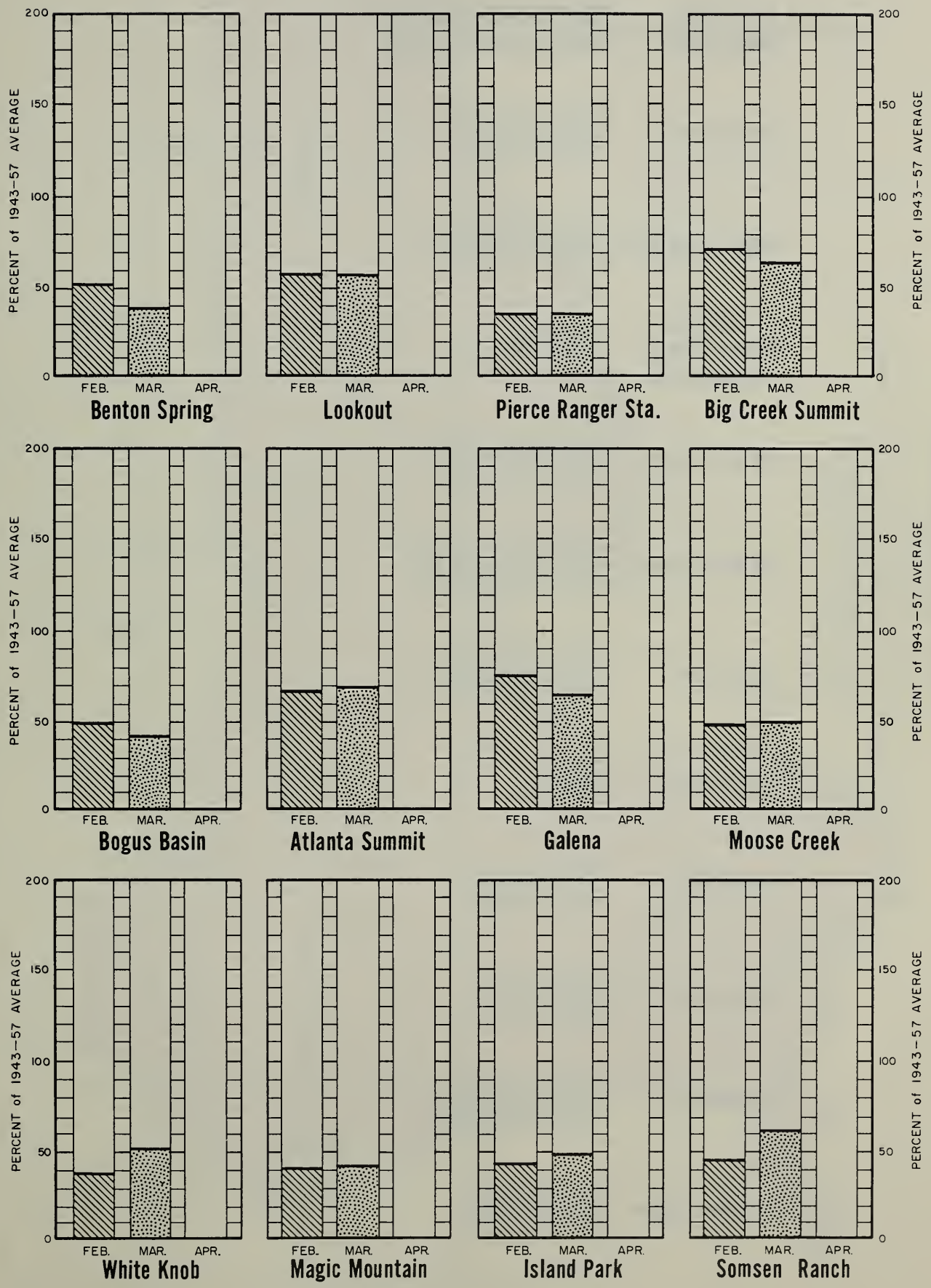
Farm irrigation systems must provide for the conveyance and distribution of water without damaging soil erosion. Unlined ditches must be located on non-erosive grades, or structures provided to control high velocities, such as drops and chutes. Lined ditches or pipelines should be used on steep slopes. Where lined ditches, flumes, chutes or pipelines carrying water at high velocities discharge into unlined ditches, stilling basins or other energy dissipators must be provided. Streams of water in corrugations and furrows must be adjustable so they will not cause erosion at any point in the run.

Farm irrigation systems must provide measuring devices, division structures, checks, turnouts, valves and gates needed to control and regulate the water for efficient application to meet soil and crop needs.

High water losses in transmission systems and low irrigation efficiencies waste water, require extra capacity to be built into the whole system, require more labor to handle the additional water, leaches fertilizer and other nutrients from the soil, and contributes to drainage problems.

SNOW WATER DEPTHS ACCUMULATION
For Selected Snow Courses
As Compared To 1943-57 15Yr. Average

MARCH 1, 1963



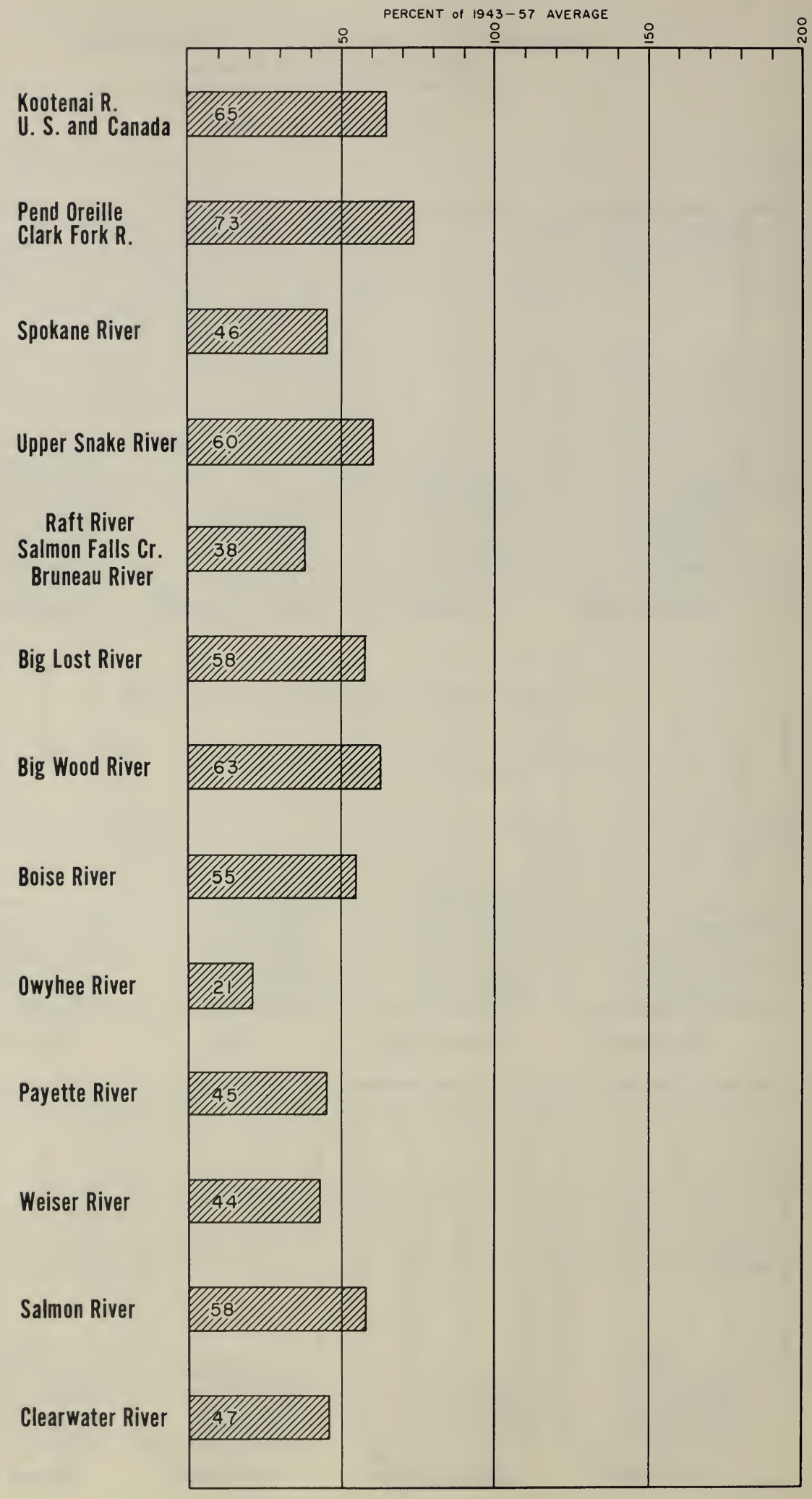
SNOW WATER DEPTHS

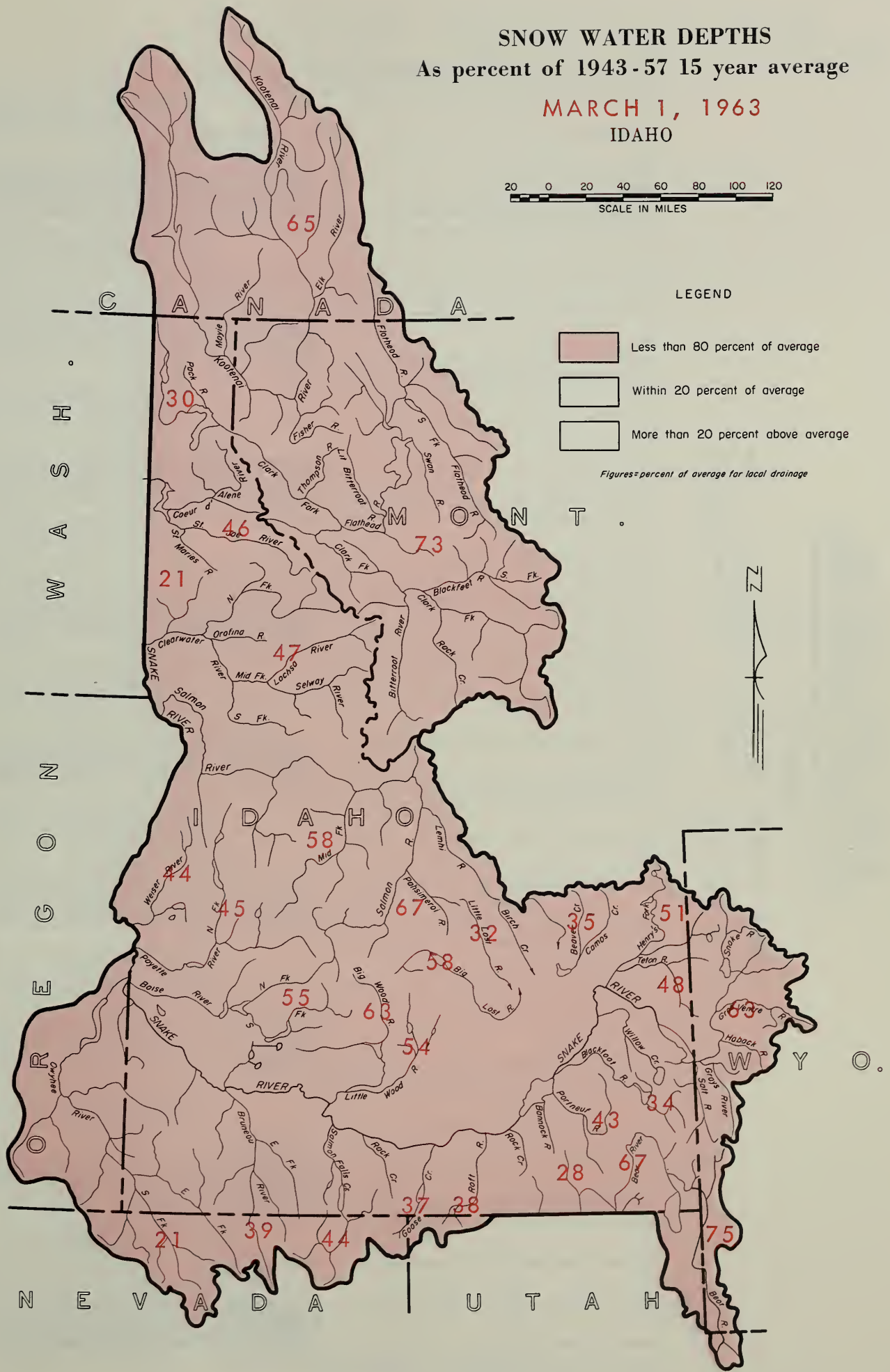
BY DRAINAGE

Compared To The 1943 - 57 15 Yr. Average

Snow Cover as of Approximately

MARCH 1, 1963



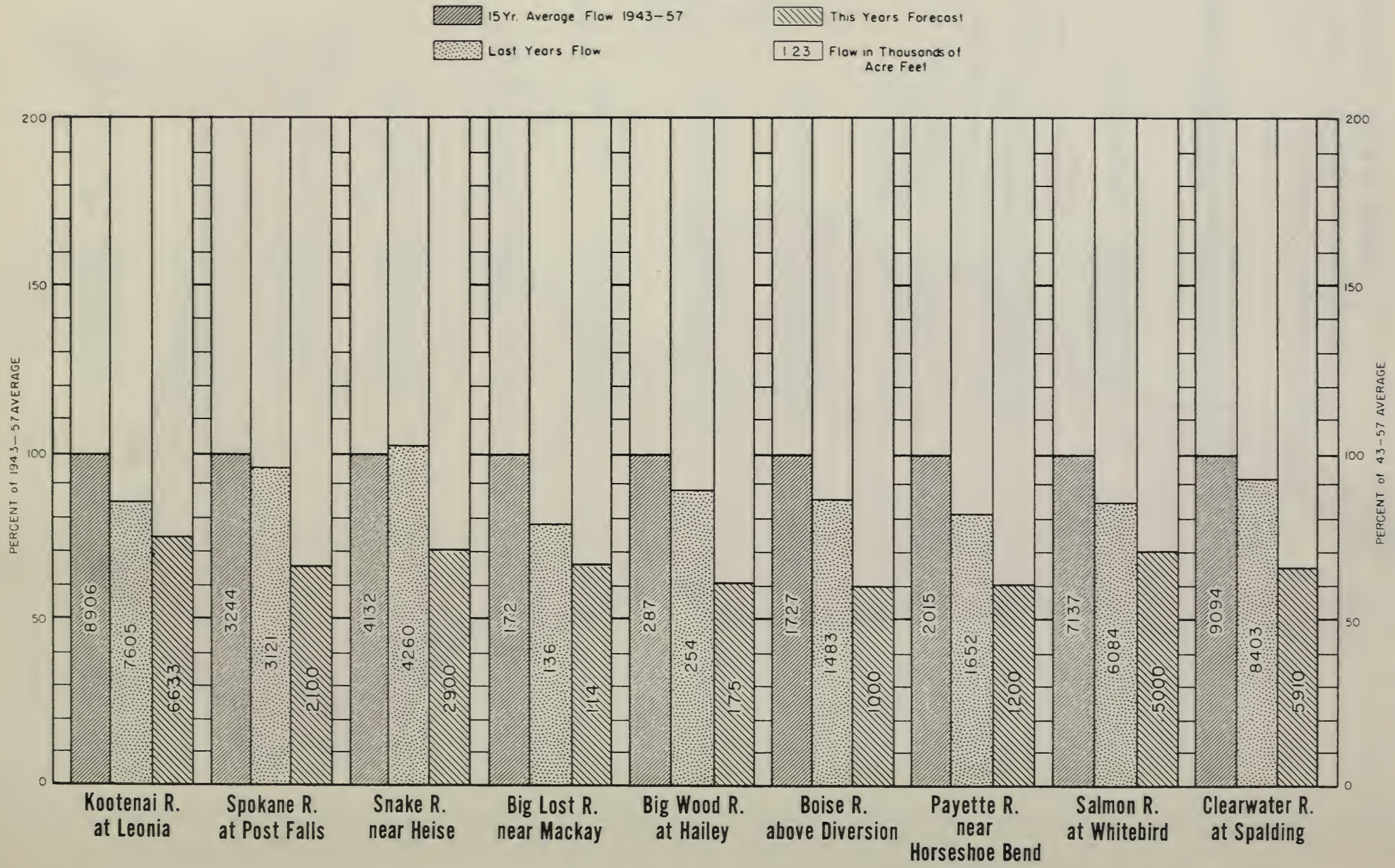

SNOW WATER DEPTHS
As percent of 1943-57 15 year average
MARCH 1, 1963
IDAHO
20 0 20 40 60 80 100 120
SCALE IN MILES
LEGEND
Less than 80 percent of average
Within 20 percent of average
More than 20 percent above average
Figures=percent of average for local drainage
CANADA
MONT.
WASH.
OREGON
IDAHO
WYO.
NEVADA
UTAH
65
30
46
73
21
47
58
44
45
67
32
35
51
58
55
63
54
48
34
43
67
28
37
38
21
39
44
75
Kootenai River
Elk River
Moyie River
Kootenai River
Pack R.
Fisher R.
Flathead R.
S. Fk. Swan R.
Flathead R.
Janty
Clark Fork
Thompson R.
L. Jr Bitterroot R.
Alene
Coeur d'
St. Joe River
St. Maries R.
N. Fk. Clearwater River
Orofino R.
Mid. Fk. Lochsa River
Selway River
Bitterroot River
Clark Fk.
Blackfeet R.
S. Fk.
Rock Cr.
Salmon RIVER
S. Fk. Salmon River
Weiser River
N. Fk. Payette River
Payette
Boise River
Mid. Fk. Boise
N. Fk. Boise
S. Fk. Boise
Big Wood R.
Lost R.
Little Lost R.
Birch Cr.
Lemhi R.
Pahsimeroi R.
Salmon
Beaver Cr.
Camas Cr.
Fall R.
Henry's Fk.
Teton R.
Snake R.
RIVER
Grays Lake
Willow Cr.
Blackfoot R.
Portneuf R.
Bannock R.
Rock Cr.
Raft R.
Goose Cr.
Marsh Creek
Little Wood R.
Owyhee River
Bruneau E. Fk.
Jarbidge River
Bear R.

WATER SUPPLY FORECASTS

APRIL THROUGH SEPTEMBER PERIOD

Based on Snow Surveys made on approximately

MARCH 1, 1963

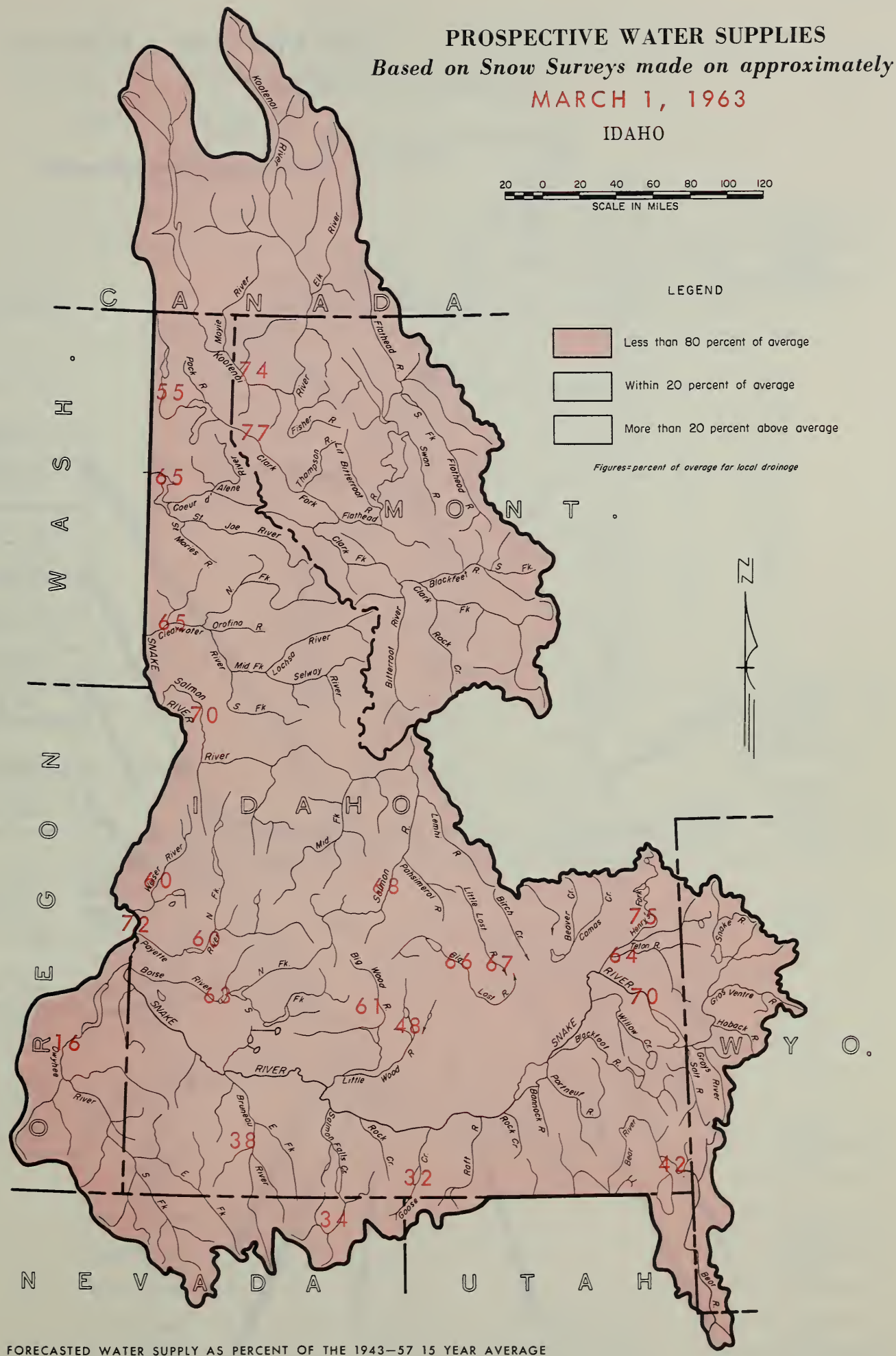


PROSPECTIVE WATER SUPPLIES

Based on Snow Surveys made on approximately

MARCH 1, 1963

IDAHO

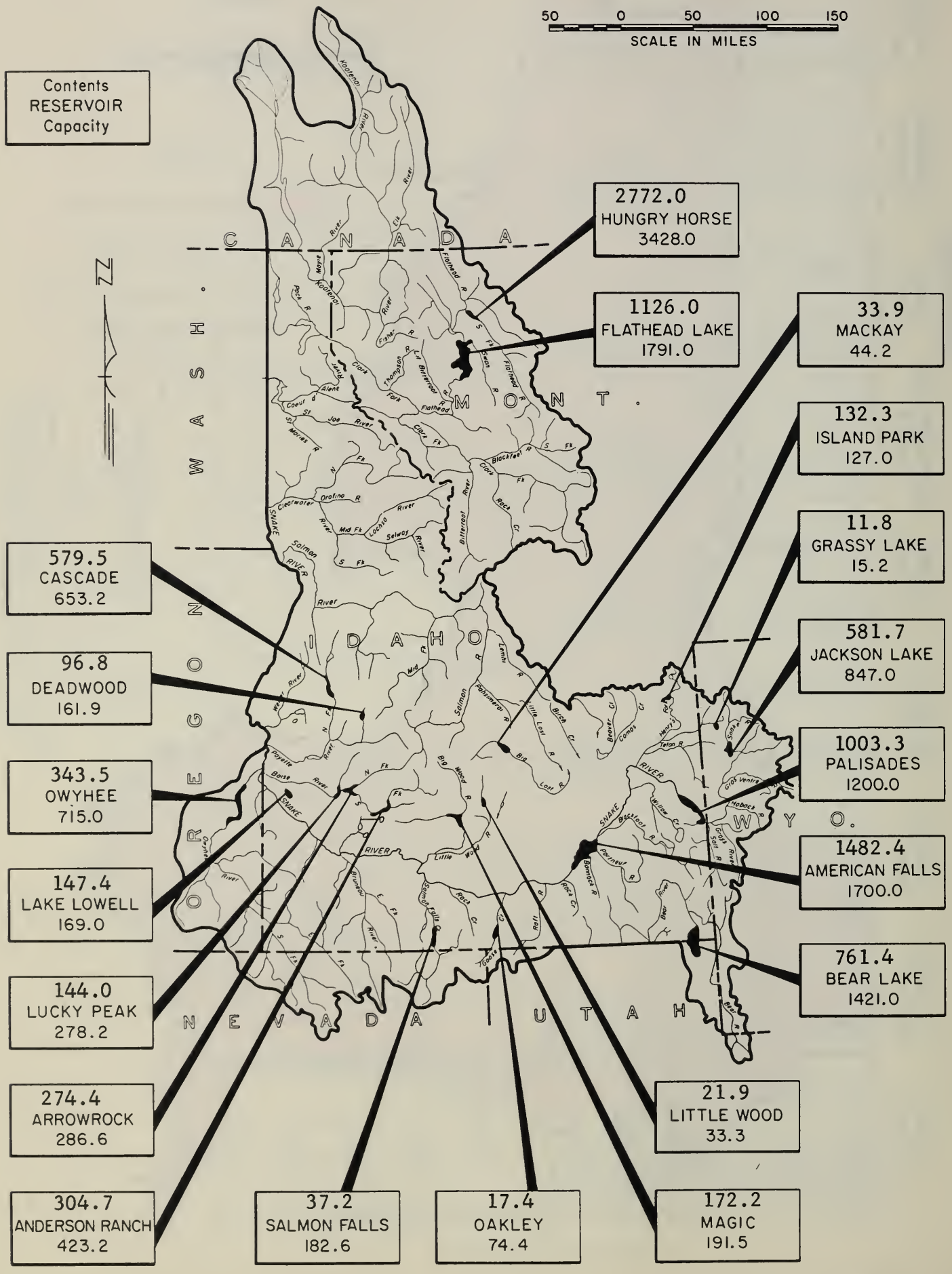


FORECASTED WATER SUPPLY AS PERCENT OF THE 1943—57 15 YEAR AVERAGE

RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)

MARCH 1, 1963



VALLEY PRECIPITATION 1/

Division Averages and Departures
In Inches

DRAINAGE DIVISIONS	Fall Sep.-Oct.-Nov. 1962		Winter Dec. 1962 - Feb. 1963	
	Average 2/	Departure 3/	Average 2/	Departure 3/
Kootenai	1.87	-0.62	6.48	-2.33
Flathead	2.01	+0.23	5.86	-0.31
Clark Fork	0.74	+0.04	2.69	+0.03
Pend Oreille-Spokane	4.12	+0.84	8.97	-2.51
Upper Snake	2.26	+0.28	5.07	-1.67
Snake River Plain	0.94	+0.21	2.49	-0.24
Salmon-Payette-Boise	2.29	+0.08	5.06	-2.49
Clearwater	2.31	-0.12	6.76	-1.57
Southeastern Oregon	0.98	+0.07	2.68	-0.78

1/ Preliminary analysis by U. S. Weather Bureau from data furnished by Meterological Service of Canada and U. S. Weather Bureau.

2/ 15-year (1943-1957) division average.

3/ Departure from 15-year (1943-57) drainage division average.

WATER SUPPLY OUTLOOK and SNOW SURVEYS
KOOTENAI, PEND OREILLE, SPOKANE, PALOUSE, CLEARWATER, SALMON WATERSHEDS
IDAHO

as of
MARCH 1, 1963

GENERAL SUMMARY

The water supply outlook for this area is well below normal. Conditions are spotted but, in general, indicate unusually low streamflow for the 1963 season.

Snow cover varies from 21 per cent of normal on the Palouse River to 73 per cent on the Pend Oreille-Clark Fork. Several rivers have the lightest snow pack recorded to date. This situation is further complicated by the fact that the low and medium elevations in the mountains have the lightest readings. The south slopes are bare of snow up to high elevations. The pattern of snow cover for this season indicates streamflow will be lower than would be expected from similar measurements when the high and low elevation snow cover are in the normal relationship.

Soil moisture conditions beneath the snow pack are close to average. This month the temperatures came up to near average for this time of the year. Air temperatures during the month were unusually warm which melted the low elevation snow and increased soil temperatures.

Streamflow during the month was unusually high as a result of the snow-melt which occurred. The large reservoirs reflect the good winter runoff and carry-over from the 1962 season.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent" **and STREAMFLOW FORECASTS (1,000 Ac. Ft.)** [a]

STREAM and/or FORECAST POINT	OUTLOOK	FORECAST THIS YEAR	FORECAST PERIOD	1943-57 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Kootenai River at Leonia		6633	Apr-Sep	8907	74
		4630	Apr-Jun	6257	74
Clark Fork at Whitehorse Rapids [c]		10792	Apr-Sep	13932	77
		9828	Apr-Jul	12763	77
		8328	Apr-Jun	10816	77
Priest River nr. Priest River [d]		500	Apr-Jul	904	55
Spokane River at Post Falls [e]		2100	Apr-Sep	3242	65
Coeur d'Alene River nr. Cataldo		860	Apr-Sep	1322	65
		835	Apr-Jul	1263	66
St. Joe River at Calder		905	Apr-Sep	1391	65
		875	Apr-Jul	1323	65
Clearwater River at Spalding		5910	Apr-Sep	9094	65
at Kamiah		3325	Apr-Sep	5116	65
		3235	Apr-Jul	4901	66
North Fork nr. Ahsahka		2140	Apr-Sep	3289	65
		2035	Apr-Jul	3086	66
Salmon River at Whitebird		5000	Apr-Sep	7137	70
nr. Challis		650	Apr-Sep	959	68
		585	Apr-Jul	839	70

Report Prepared by
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P.O. BOX 1247, BOISE, IDAHO

HISTORICAL DATA (Kootenai River) Data obtained from U.S. Geological Survey records.

YEAR	SEASONAL VOLUMES at LEONIA STREAMFLOW (1,000 Acre-Ft.)			RIVER FLOOD STAGES			
				LEONIA		BONNERS FERRY	
	APR. – SEPT.	APR JUNE	MAY – JUNE	GAGE HEIGHT	PEAK C.F.S.	MAX. DISCH. C.F.S.	GAGE HEIGHT
1943	9,255	6,191	4,333	114.12	58,000	65,000	24.99
1944	4,136	2,818	2,505	108.55	30,000	31,100	14.02
1945	6,050	4,060	3,802	114.07	57,700	61,300	24.04
1946	9,510	6,903	5,834	116.65	80,500	77,000	30.41
1947	9,100	6,823	5,629	117.31	88,200	82,500	31.31
1948	11,073	8,440	7,508	123.15	^139,000	123,000	35.32
1949	6,899	5,366	4,316	116.68	81,700	75,200	30.84
1950	9,965	6,677	5,890	118.21	^ 90,100	87,100	33.98
1951	10,807	7,101	6,001	117.04	76,300	83,800	31.86
1952	8,454	6,096	4,659	114.87	63,000	69,700	26.30
1953	8,402	5,600	5,024	116.51	74,700	^ 76,700	30.21
1954	12,213	7,583	6,878	120.81	104,000	^132,000	35.55
1955	8,444	5,377	4,996	117.30	79,300	86,200	31.80
1956	11,494	8,755	7,308	121.65	115,000	^127,000	37.09
1957	9,798	6,074	5,468	115.93	71,000	78,300	28.81

COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF :	
		LAST YEAR	AVERAGE b
Kootenai-Canada & U.S.	12	76	65
Pend Oreille-Clark Fork	37	74	73
Priest River	2	35	30
Spokane River	3	48	46
Palouse River	1	22	21
Clearwater River	6	49	47
Salmon River	10	60	58

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1943-57 AVERAGE
Hungry Horse	3428.0	2772.0	2172.0	2369.0
Flathead	1791.0	1126.0	806.5	768.2
Pend Oreille	1561.0	1070.0	842.1	--
Coeur d'Alene	238.5	172.3	104.9	--

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Benton Spring	4900	48	14.4	2/27	9.8	9.1	10.0
Brown	3100	36	6.7	2/26	4.3	4.2*	--
Fohl	3450	48	13.3	2/26	9.8	8.0*	--
Fourth of July Summit	3100	48	11.6	2/28	6.9	--	--
Lookout	5250	48	11.0	2/28	6.1	--	--
Midway	2200	36	6.1	2/26	4.0	3.7*	--

* Spring Measurements.

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1943-57 AVERAGE
Above Gilmore	8200	2/28	25	6.2	8.2	--
Above Greer	1240	2/26	0	0.0	0.0	--
Benton Meadow	2344	2/27	1	0.4	6.5	6.5
Benton Spring	4900	2/27	24	7.8	17.2	20.4
Big Creek Summit	6608	2/27	60	20.3	30.5	31.7*
Boulder Creek	5500	2/27	31	10.0	21.7	21.4*
Cayuse Airstrip	3700	2/25	11	4.6	12.4	11.9*
Chapman Creek	4220	2/28	0	0.0	2.3	2.3*
Copes Camp	7500	3/1	26	5.0	7.2	--
Copper Ridge	4800	3/1	36	10.4	26.8	27.2

(*) Estimated 1943-57 average. (**) Average for period of record. (^) Affected by dike breakage downstream. (o) Forecasts made by P. E. Farnes, SCS, Bozeman, Montana. ( ) Aerial observation, water content estimated. (a) Assuming normal meteorological conditions. (b) Actual or estimated 1943-57 average. (c) Observed flow corrected for storage in Flathead Lake and Hungry Horse. (d) Observed flow corrected for storage in Priest Lake. (e) Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

KOOTENAI, PEND OREILLE, SPOKANE, PALOUSE, CLEARWATER, SALMON WATERSHEDS

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1943-57 AVERAGE
Crater Meadows	6100	2/28	69	22.7	--	--
Crumarine Creek	3500	2/28	0	0.0	--	6.7*
Deadwood Summit	7000	2/27	77	25.8	40.6	42.1*
East Twin	4000	2/28	0	0.0	12.3	11.4*
Elk Butte	5550	2/27	41	13.3	--	--
Fish Lake Airstrip	5000	2/27	65	21.2	38.9	39.5*
Forest	4550	2/26	0	0.0	8.4	--
Forty-nine Meadows	5000	2/27	41	12.9	27.3	33.3*
Fourth of July Summit	3100	2/28	T	T	9.8	--
Galena Summit	8795	2/28	51	14.9	19.2	20.3*
Gertson Creek +	8050	3/2	10	2.0	9.1	--
Greer Summit	3000	2/26	0	0.0	0.0	--
Hemlock Butte	5500	2/25	68	26.0	46.8	--
Howard Creek	3500	2/28	0	0.0	2.0	3.3*
Johns Creek	3810	2/28	0	0.0	1.2	2.8*
Kellogg Peak +	5560	2/25	24	7.7	--	--
Lolo Pass	5230	2/25	49	17.5	34.4	32.9*
Lookout	5250	2/28	60	19.3	31.4	33.7*
Lower Sands Creek	3400	3/1	24	7.0	18.6	18.5*
McCann	4300	2/26	0	0.0	10.2	--
Meadow Lake	9100	2/28	39	10.8	16.3	--
Midway	2200	2/26	0	0.0	0.0	--
Mill Creek Summit	8870	3/3	52	13.6	19.0	--
Moose Creek	6200	2/27	36	8.0	12.6	16.1
Moscow Mountain	4800	2/28	14	3.5	15.9	16.6*
Mosquito Ridge +	5110	2/25	61	19.6	31.6	--
Nez Perce Pass Mont.	6575	2/28	33	9.0	9.3	16.8*
Outlaw Creek	3750	2/27	18	4.9	14.4	--
Pahsimeroi +	7600	3/1	0	0.0	--	--
Pierce Rgr. Sta.	3171	2/25	11	4.0	11.0	11.0*
Powell Rgr. Sta.	4230	2/25	21	7.3	13.7	14.6*
Rock Flat Summit	5200	2/26	20	6.6	17.6	17.1*
Roland Summit +	5200	2/25	43	13.8	--	--
Savage Pass	6600	2/25	52	18.6	24.2	--
Schwartz Lake	8500	3/1	35	8.4	10.9	--
Shanghai Summit	4600	3/1	27	8.9	--	--
Sherwin	3200	3/1	15	3.7	17.2	--
Squaw Meadow +	5800	2/27	44	14.9	40.6	34.2*
Sunset +	5600	2/25	56	18.0	--	--
Sweeney	4435	2/26	0	0.0	7.4	--
Twin Peaks +	9190	3/1	45	11.8	--	--
Vienna Mine +	8900	2/25	69	20.1	29.9	31.4*
West Twin	4200	2/28	0	0.0	9.8	10.7*
Whitebird Summit	4400	2/28	1	0.4	10.6	4.8*
Williams Creek Summit	7800	3/2	34	7.9	11.6	12.0*

WATER SUPPLY OUTLOOK and SNOW SURVEYS
BOISE, PAYETTE, WEISER, BRUNEAU, OWYHEE WATERSHEDS
IDAHO

as of
MARCH 1, 1963

GENERAL SUMMARY

The water supply outlook for this area varies from poor to near normal by drawing on stored water. The Boise and Payette Rivers have excellent storage carry-over which can make up for practically all of the deficiency forecast in streamflow for 1963. Those water rights controlled by the actual flow of the river can expect an unusually early drop in the flow of the river especially if March snowfall continues below average.

The snow pack varies from 21% of normal on the Owyhee River to 55% on the Boise. In many cases, the low and medium elevation snow courses in the mountains have the lightest snow pack ever recorded. Higher elevation snow courses, such as Trinity and Deadwood Summit, however, have a relatively heavier snow cover for this season. The south slopes in general are bare to elevations exceeding 9,000 feet.

Soil moisture conditions beneath the snow pack are generally dry. There was a slight increase in the lower and middle elevation soil moisture sites as a result of snow-melt, but no significant change has taken place.

Reservoir storage on the Boise and Payette Rivers is well above normal. Owyhee Reservoir is below normal but had an excellent increase during February and, even with the extremely low forecasted inflow, should be able to deliver close to normal irrigation water supplies.

Water in general should be used very conservatively to make possible the greatest amount of carry-over for 1964.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent" and STREAMFLOW FORECASTS (1,000 Ac. Ft.) [a]

STREAM and/or FORECAST POINT	OUTLOOK	FORECAST THIS YEAR	FORECAST PERIOD	1943-57 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Boise River nr. Twin Springs		500	Apr-Sep	791	63
		465	Apr-Jul	737	63
nr. Boise		1000	Apr-Sep	1704	59
South Fork at Anderson Dam		380	Apr-Sep	646	59
Payette River nr. Horseshoe Bend		1200	Apr-Sep	2016	60
North Fork at Cascade		400	Apr-Sep	618	65
nr. Banks		490	Apr-Sep	793	62
		475	Apr-Jul	765	62
South Fork nr. Banks		640	Apr-Jul	1077	59
Weiser River ab. Crane Creek		345	Mar-Sep	575	60
Bruneau River nr. Hot Springs		90	Mar-Sep	235**	38
Lake Owyhee net Inflow		70	Apr-Sep	430	16
		100	Mar-Jul	524	19
Snake River at Weiser		5600	Apr-Sep	7725	72

COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF: LAST YEAR	AVERAGE [b]
Boise	12	60	55
Payette	9-13	47	45
Weiser	3-5	55	44
Bruneau	8	34	39
Owyhee	13-16	22	21

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month) THIS YEAR	LAST YEAR	1943-57 AVERAGE
Anderson	423.2	304.7	38.3	183.2
Arrowrock	286.6	274.4	245.6	196.8
Lucky Peak	278.2	144.0	35.5	--
Lake Lowell	169.0	147.4	120.4	110.2
Cascade	653.2	579.5	153.8	207.6
Deadwood	161.9	96.8	57.4	83.3
Owyhee	715.0	343.5	168.5	473.1

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SOIL MOISTURE

STATION NAME	ELEVATION	PROFILE (Inches) DEPTH	PROFILE (Inches) CAPACITY	SOIL MOISTURE (Inches) DATE	SOIL MOISTURE (Inches) THIS YEAR	SOIL MOISTURE (Inches) LAST YEAR	SOIL MOISTURE (Inches) 2 YEARS AGO
Bad Bear	5500	60	6.3	3/3	4.4	--	--
Bogus Basin	6120	48	13.1	3/1	8.5	6.6	7.2
Bogus Basin Road	4830	48	7.1	3/1	5.7	6.0	5.7
Moores Creek Summit	6100	60	8.8	3/3	6.1	--	--
Mud Flat	5500	48	12.8	2/28	10.0	8.0	7.1
Triangle	5150	60	16.2	2/28	12.6	--	--

SNOW

SNOW COURSE NAME		ELEVATION	CURRENT INFORMATION DATE OF SURVEY	CURRENT INFORMATION SNOW DEPTH (Inches)	CURRENT INFORMATION WATER CONTENT (Inches)	PAST RECORD WATER CONTENT (Inches) LAST YEAR	PAST RECORD WATER CONTENT (Inches) 1943-57 AVERAGE
Antelope Ridge		5900	2/28	0	0.0	1.1	--
Atlanta Summit +		7500	2/28	64	22.0	30.3	31.9*
Bad Bear		5500	3/3	0	0.0	13.4	--
Battle Creek +		5700	3/4	0	0.0	1.2	--
Bear Creek	Nev.	7800	2/27	39	9.4	20.2	17.1*
Bennett Mountain		6650	2/28	21	7.2	15.8	--
Big Bend	Nev.	6700	2/25	2	0.6	9.1	8.9
Big Creek Summit		6608	2/27	60	20.3	30.5	31.7*
Bogus Basin		6120	3/1	26	9.0	21.2	21.8*
Bogus Basin Road		5360	3/1	0	0.0	2.7	6.7*
Boulder Creek		5500	2/27	31	10.0	21.7	21.4*
Bull Basin +		5600	3/4	1	0.2	1.0	--
Camas Creeks Divide +		5720	3/3	T	T	8.3	--
Couch Summit		7000	3/5	29	8.5	18.9	18.1*
Cozy Cove		5900	2/25	12	4.3	14.9	16.3*
Crawford Rgr. Sta.		4800	3/1	0	0.0	7.8	7.4*
Danskin +		5650	3/3	.4	1.2	11.2	--
Deadwood Airstrip		5440	2/25	8	3.6	15.1	--
Deadwood Dam		5290	2/25	14	5.0	15.7	16.4*
Deadwood Summit		7000	2/27	77	25.8	40.6	42.1*
Dixie Hill		5230	2/28	0	0.0	6.4	--
Dollarhide Summit +		8700	2/25	52	17.8	26.1	23.8*
Fox Creek	Nev.	6800	2/27	7	2.0	8.8	8.4*
Fry Canyon	Nev.	6700	2/25	0	0.0	6.1	8.2
Galena		7500	2/28	41	11.4	16.7	17.6*
Galena Summit		8795	2/28	51	14.9	19.2	20.3*
Goat Creek +	Nev.	8800	2/25	34	10.1	20.7	15.7*
Gold Creek	Nev.	6600	2/25	0	0.0	4.8	6.3*
Greenfield Flat +		7370	3/3	85	28.7	34.0	--
High Valley Summit		5170	3/1	8	2.3	10.5	--
Hummingbird Springs +	Nev.	8945	2/25	38	9.2	24.7	18.3*
Hyde Pasture +		5800	3/4	0	0.0	1.8	--
Jacks Peak	Nev.	8420	2/26	38	10.1	25.5	18.8*
Jackson Peak +		7000	2/27	51	17.5	--	30.6*
Lake Fork		6000	2/26	19	5.5	15.5	15.8*
Little Camas Flat +		4950	3/3	0	0.0	4.0	--
Long Tom +		4550	3/3	0	0.0	0.9	--
Lower Jack Creek		6800	2/26	2	0.4	2.5	3.2
Mica Ridge +		6800	3/3	45	15.2	--	--
Moores Creek Summit		6100	3/3	37	12.7	25.4	30.4
Mount Baldy		9000	3/1	40	10.6	18.4	18.2*
Mud Flat		5500	2/28	0	0.0	2.4	--
Placer Creek		6000	2/27	22	7.1	13.8	15.4*
Pole Creek Rgr. Sta.	Nev.	8330	2/26	36	8.7	18.6	16.0*
Prairie		5600	2/28	0	0.0	4.2	6.5*
Red Canyon +		6650	3/4	3	0.6	3.2	--
Red Point +	Nev.	7940	2/25	6	1.5	10.5	--

**Estimated 1943-57 average. (o) Forecast made by W. T. Frost, S.C.S., Portland, Oregon. (+) Aerial observation, water content estimated. (a) Assuming normal meteorological conditions. (b) Actual or estimated 1943-57 average. (c) Observed flow corrected for storage in Arrowrock, Anderson Ranch and Lucky Peak. (d) Observed flow corrected for change of storage in Anderson Ranch Reservoir. (e) Observed flow corrected for change of storage in Cascade & Deadwood Reservoirs. (f) Observed flow corrected for change of storage in Cascade Reservoir. (g) Observed flow corrected for change of storage in Deadwood Reservoir. (h) Observed flow of Weiser River nr. Weiser minus the observed flow of Crane Creek at mouth. (i) From U.S.B.R. records of inflow. (**) 1944-1957 average.*

BOISE, PAYETTE, WEISER, BRUNEAU, OWYHEE WATERSHEDS

SNOW

SNOW COURSE NAME		ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1943-57 AVERAGE
Road Creek +		6800	2/27	6	2.1	8.6	11.6*
Rock Flat Summit		5200	2/26	20	6.6	17.6	17.1*
Rodeo Flat	Nev.	6800	2/25	T	T	4.8	8.2
Seventy-six Creek +	Nev.	7100	2/25	T	T	10.4	12.8*
Silver City		6400	2/28	5	1.4	13.9	14.8*
Soldier Rgr. Sta.		6100	2/28	14	5.2	11.5	12.3*
South Mountain		6340	2/27	7	1.6	8.2	11.4
Squaw Flat +		6230	3/3	27	9.1	24.4	--
Squaw Meadow +		5800	2/27	44	14.9	40.6	34.2*
Succor Creek +		6100	3/4	2	0.4	4.0	--
Taylor Canyon	Nev.	6200	2/26	0	0.0	2.6	5.0
Triangle +		5150	2/28	0	0.0	0.1	--
Trinity Mountain		7400	2/27	69	26.4	37.1	40.3*
Tripod Summit		5200	3/1	16	5.2	15.6	--
Upper Jack Creek	Nev.	7250	2/26	7	2.9	10.0	9.7*
Vienna Mine +		8900	2/25	69	20.1	29.9	31.4*
Willow Creek Cabin +		4710	3/3	0	0.0	0.6	--

WATER SUPPLY OUTLOOK and SNOW SURVEYS

SNAKE, BIG WOOD, LITTLE WOOD, RAFT, GOOSE CREEK, SALMON FALLS CREEK WATERSHEDS

IDAHO

as of

MARCH 1, 1963

GENERAL SUMMARY

The water supply outlook for all rivers in this area is poor. Reservoir hold-over on the main stem of the Snake, and some other large rivers, is excellent and can make up for the forecasted deficiencies in streamflow. The smaller streams, with little or no storage facilities, face the possibility of serious water shortages in 1963.

Snow cover varies from 37% of normal on Goose Creek to 63% on the Big Wood River. The low elevation snow cover is almost entirely gone and south slopes are bare at elevations up to as high as 9,000 feet. Snowfall during the month of February was not up to normal, and temperatures during the month were extremely warm.

Soil moisture in general is well below normal throughout the entire area. Soil temperatures returned to average conditions during the month. The dry conditions beneath the snow pack is expected to absorb an unusually heavy amount of snow-melt during the 1963 season, thus reducing the runoff forecast from the snow pack.

Reservoir-stored water in general is slightly to well above normal. The good carry-over storage on the bigger rivers will be an important factor in averting deficiencies during the 1963 season. In some cases, however, the reservoirs are too small to carry sufficient water for the entire season and shortages may result.

Water in general should be used very conservatively to make possible the greatest amount of carry-over for 1964.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent" **and STREAMFLOW FORECASTS (1,000 Ac. Ft.)** [a]

STREAM and/or FORECAST POINT	OUTLOOK	FORECAST THIS YEAR	FORECAST PERIOD	1943-57 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Snake River nr. Heise		2900	Apr-Sep	4132	70
nr. Blackfoot		2970	Apr-Jul	4239	70
Big Wood River at Hailey		175	Apr-Sep	287	61
(corrected for Diversions)		210	Apr-Sep	340	62
Big Wood nr. Bellevue		95	Mar-Jul	174*	55
(corrected for Diversions)		190	Mar-Jul	315*	60
Camas Creek nr. Blaine		60	Mar-Jul	135*	45
Magic Reservoir Inflow		160	Mar-Jul	309*	52
Little Wood River ab. High Five Creek		42	Apr-Sep	87.5*	48
Goose-Trapper Creeks inflow to Oakley Res.		11	Mar-Sep	34.0*	32
Salmon Falls Creek nr. San Jacinto		30	Mar-Sep	87.7	34
		29	Mar-Jul	85.0	34
Cedar Creek Inflow		3	Mar-Sep	--	--

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COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF	
		LAST YEAR	AVERAGE b
Snake ab. American Falls	41	55	58
Big Wood	9	65	63
Little Wood	3-5	56	54
Raft	2-7	40	38
Goose Creek	2	33	37
Salmon Falls Creek	9-11	37	44

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1943-57 AVERAGE
Jackson Lake	847.0	581.7	142.5	465.5
Palisades	1200.0	1003.3	605.3	--
American Falls	1700.0	1482.4	1575.4	1425.8
Magic	191.5	172.2	34.0	128.2
Oakley	74.4	17.4	23.7	18.5
Salmon Falls	182.6	37.2	30.2	29.6
Little Wood	33.3	21.9	10.3	--
Fish Creek	--	8.8	--	--

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Badger Gulch	6660	36	7.0	2/26	4.8	6.2	--
Bear Creek	7800	72	16.8	2/27	7.6	8.7	8.6
Conner Pass	5700	36	9.8	2/25	7.9	6.0	--
Deadline	6900	36	7.4	2/28	4.8	5.2*	--
Galena	7300	48	8.8	2/28	4.9	--	--
Galena Summit	8795	48	5.8	2/28	1.8	--	--
Garfield Ranger Station	6554	36	5.2	2/25	3.3	4.3	2.8
Howell Canyon	8000	46	11.5	2/25	3.6	--	--
Niggerhead	5450	36	10.1	2/26	6.8	6.6	6.6
Patrick Ranch	5720	36	7.7	2/26	4.6	4.6	4.2
Pole Creek Ranger Station	8330	48	12.7	2/26	6.4	7.6	4.9
Sheep Hollow	6200	32	7.5	3/1	2.3	--	--
Sublett	6000	36	7.0	2/28	2.9	6.4	--
Trapper Creek	5300	36	10.0	2/26	8.2	6.4	--

*Spring Measurements.

SNOW

SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
NAME		ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
						LAST YEAR	1943-57 AVERAGE
Badger Gulch		6660	2/26	6	2.7	11.9	11.7*
Bear Canyon		8600	2/25	37	9.0	16.0	16.6*
Bear Creek	Nev.	7800	2/27	39	9.4	20.2	17.1*
Bennett Mountain		6650	2/28	21	7.2	15.8	--
Bostetter Rgr. Sta.		7500	3/2	29	8.1	20.4	17.3*
Boy Scout Camp		7600	3/1	27	7.4	13.6	--
Camas Creeks Divide +		5720	3/3	T	T	8.3	--
Cedar Creek +		7000	2/25	T	T	9.4	10.3*
Clear Creek Meadows	Utah	9050	2/27	36	9.7	23.8	--
Couch Summit		7000	3/5	29	8.5	18.9	18.1*

*Estimated 1943-57 average. (+) Aerial observation, water content estimated. (a) Assuming normal meteorological conditions. (b) Actual or estimated 1943-57 average. (c) Observed flow corrected for storage in Jackson Lake and Palisades Reservoir. (d) Observed flow corrected for storage in Jackson Lake, Palisades, Island Park, Grassy Lake, Henry's Lake and diversions between Heise and Blackfoot. (e) Combined discharge of Big Wood River and Big Wood Slough. (**) 1949-1960 average.

SNAKE RIVER, BIG WOOD, LITTLE WOOD, RAFT, GOOSE CREEK, SALMON FALLS CREEK WATERSHEDS

SNOW

SNOW COURSE NAME		ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1943-57 AVERAGE
Deadline		6900	2/28	34	9.0	19.8	19.9*
Dollarhide Summit +		8700	2/25	52	17.8	26.1	23.8*
Fox Creek	Nev.	6800	2/27	7	2.0	8.8	8.4*
Galena		7500	2/28	41	11.4	16.7	17.6*
Galena Summit		8795	2/28	51	14.9	19.2	20.3*
Garfield Rgr. Sta.		6554	2/25	18	5.7	9.6	10.9*
Goat Creek +	Nev.	8800	2/25	34	10.1	20.7	15.7*
Graham Ranch		6200	2/28	28	9.0	11.4	12.9
Howell Canyon		8000	2/25	33	10.9	21.5	24.3*
Humaingbird Springs +	Nev.	8945	2/25	38	9.2	24.8	18.3*
Iron Bog		7650	2/25	24	6.4	13.3	--
Iron Mine Creek		6370	2/26	19	6.3	10.4	--
Leadbelt		6800	2/25	13	4.3	9.2	--
Little Camas Flat +		4950	3/3	0	0.0	4.0	--
Lost-Wood Divide +		8750	2/25	51	14.9	18.9	22.9*
Magic Mountain		6700	2/28	24	7.1	15.4	17.1*
Mascot Mine		7900	2/27	30	8.4	13.9	14.2*
Mount Baldy		9000	3/1	40	10.6	18.4	18.2*
Muldoon		6300	2/25	19	5.8	7.5	8.4*
North Fork Meadow +		8150	2/26	21	6.1	12.3	--
One Mile Summit	Utah	7330	2/27	10	3.3	7.3	--
Pole Creek Rgr. Sta.	Nev.	8330	2/26	36	8.7	18.6	16.0*
Porcupine +		8350	2/25	33	9.6	18.4	--
Red Point +	Nev.	7940	2/25	6	1.5	10.5	--
Seventy-six Creek +	Nev.	7100	2/25	T	T	10.4	12.8*
Sheep Hollow		6200	3/1	5	1.5	5.1	--
Shoshone Basin		5740	2/28	T	T	2.0	4.7*
Slickrock +		8640	2/26	38	11.1	14.1	--
Soldier Rgr. Sta.		6100	2/28	14	5.2	11.5	12.3*
Stickney Mill		7500	2/25	21	5.7	8.4	8.8
Sublett		6000	2/28	7	2.5	10.0	10.5*
Summit Springs		8500	2/28	6	2.1	8.9	--
Swede Peak		7500	2/25	36	9.4	16.3	--
Telfer Ranch		6000	2/26	8	3.4	8.3	8.1*
Twin Rocks +		8100	2/26	35	9.3	18.4	--
Vienna Mine +		8900	2/25	69	20.1	29.9	31.4*
Vi Pont +	Utah	7650	2/28	24	5.8	15.9	--
Wilson Creek +		7500	2/25	12	2.9	10.8	--

WATER SUPPLY OUTLOOK and SNOW SURVEYS
UPPER SNAKE, BLACKFOOT, PORTNEUF, BEAR, MALAD WATERSHEDS
IDAHO

as of
MARCH 1, 1963

GENERAL SUMMARY

The water supply outlook in this area is poor excepting on those rivers with adequate storage facilities. The main stem of the Snake and Blackfoot Rivers have carry-over water which can make up for most of the deficiency in forecasted streamflow for 1963.

Snow cover in general varies from 20% of normal on Mink Creek to 75% for the Bear River above Harer. Snow cover is very spotted. The higher elevation snow courses have a proportionately heavier snow pack. The measurements on low and medium elevation courses are among the lowest of record and, in many cases, the lowest of record.

Soil moisture varies from slightly below normal to unusually dry conditions. Soils under the snow pack at higher elevations are the driest. Soil temperatures in general are close to normal.

Reservoir-stored water on the main stem of the Snake is well above normal, and some of the smaller reservoirs increased significantly during January and February. Those small streams in this area without adequate storage facilities face the possibility of water shortages in 1963.

Water in general should be used very conservatively to make possible the greatest amount of carry-over for 1964.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent" and STREAMFLOW FORECASTS (1,000 Ac. Ft.) [a]

STREAM and/or FORECAST POINT	OUTLOOK	FORECAST THIS YEAR	FORECAST PERIOD	1943-57 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Snake River nr. Heise		2900	Apr-Sep	4132	70
nr. Blackfoot		2970	Apr-Jul	4239	70
Blackfoot Reservoir Inflow		80	Apr-Sep	--	--
Portneuf River at Topaz		32	Mar-Sep	--	--
Bear River at Harer		125	Apr-Sep	299	42
Cub River nr. Preston		28	Apr-Sep	52*	54
Montpelier Creek nr. Montpelier		7	Apr-Sep	13.1	53

COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF: LAST YEAR	AVERAGE [b]
Snake ab. Idaho Falls	28	58	63
Blackfoot River	3	38	34
Portneuf River	3	46	43
Mink Creek	3-4	42	20
Cub River	2	24	23
Malad River	2	31	28
Bear ab. Harer	6	62	75
Bear ab. Preston	15	66	67

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month) THIS YEAR	LAST YEAR	1943-57 AVERAGE
Jackson Lake	847.0	581.7	142.5	465.5
Palisades	1200.0	1003.3	605.3	--
American Falls	1700.0	1482.4	1575.4	1425.8
Bear Lake	1421.0	761.4	524.3	815.6

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SOIL MOISTURE

STATION NAME	STATION ELEVATION	PROFILE (Inches) DEPTH	PROFILE (Inches) CAPACITY	SOIL MOISTURE (Inches) DATE	SOIL MOISTURE (Inches) THIS YEAR	SOIL MOISTURE (Inches) LAST YEAR	SOIL MOISTURE (Inches) 2 YEARS AGO
Emigrant Summit	7350	36	8.2	2/28	3.3	3.4	--
Giveout Pass	7025	50	12.6	2/26	7.3	--	--
Jenson Ranch	6580	45	18.7	2/26	15.7	--	--
Lower Pebble	5800	36	7.6	2/26	5.9	7.3	--
Pebble Creek	6550	48	7.2	2/26	3.1	4.4*	--

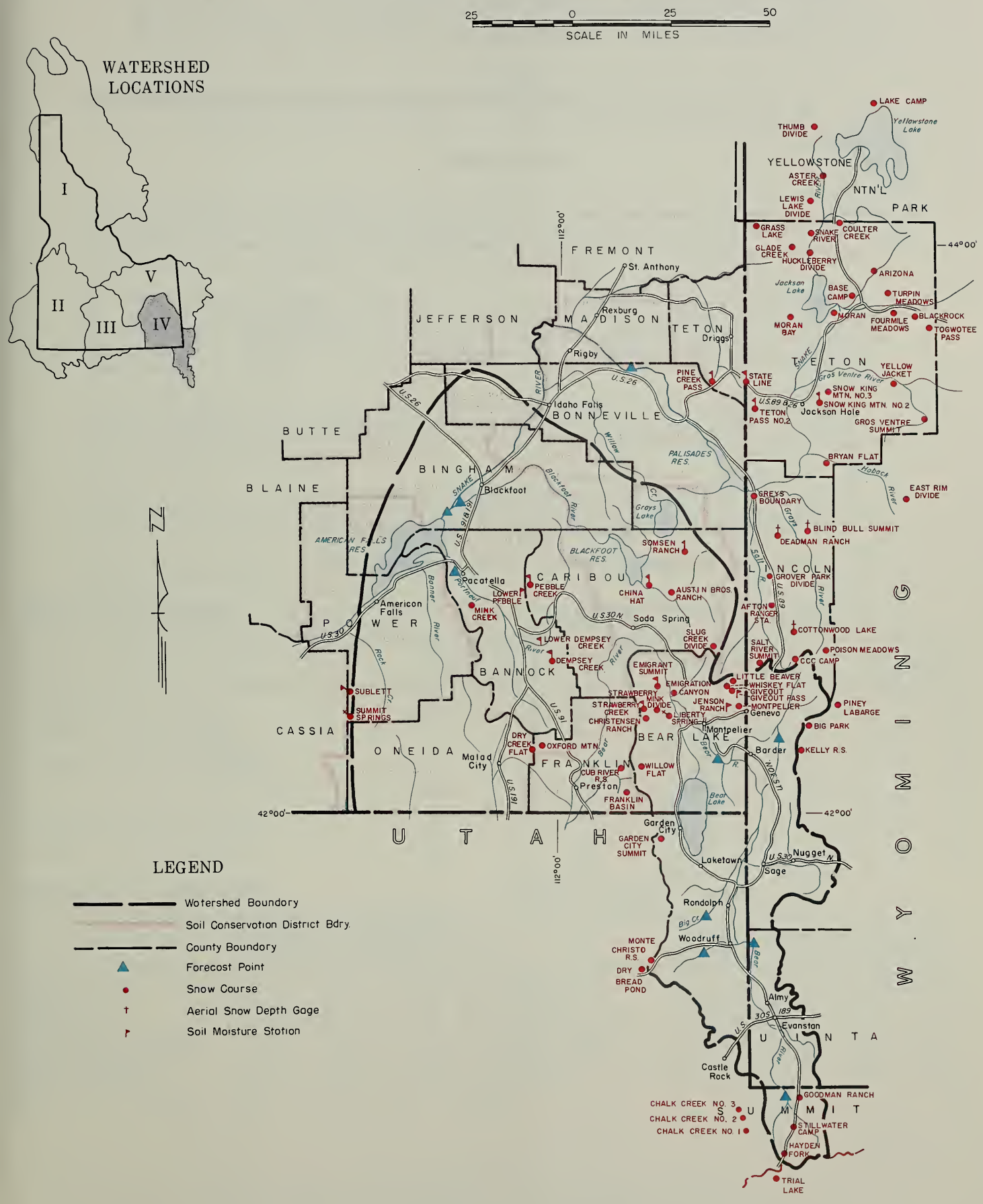
* Spring Measurement.

SNOW

SNOW COURSE NAME	SNOW COURSE ELEVATION	CURRENT INFORMATION DATE OF SURVEY	CURRENT INFORMATION SNOW DEPTH (Inches)	CURRENT INFORMATION WATER CONTENT (Inches)	PAST RECORD WATER CONTENT (Inches) LAST YEAR	PAST RECORD WATER CONTENT (Inches) 1943-57 AVERAGE
Austin Bros. Ranch	6450	2/27	Ice	2.0	7.2	7.1*
China Hat	6300	2/27	T	T	5.2	7.6*
Christensen Ranch	5600	2/28	0	0.0	9.0	9.4*
Cub River Rgr. Sta.	5400	2/28	0	0.0	8.2	8.9*
Dempsey Creek	6280	2/27	15	4.2	9.2	9.8*
Dry Basin +	7900	3/3	57	17.3	--	--
Dry Creek Flat	6350	2/26	0	0.0	6.6	7.2*
Emigrant Summit	7700	2/28	48	14.6	22.8	--
Emigration Canyon	6300	2/28	16	6.7	10.7	--
Giveout	6850	2/26	21	5.9	--	--
Horseshoe Basin +	8000	3/3	65	19.8	24.9	--
Liberty Spring +	8600	3/3	53	16.1	--	--
Little Beaver	7000	2/26	27	8.6	--	--
Mink Creek	6300	2/27	20	6.2	13.4	14.2*
Montpelier Creek	6600	2/26	12	4.1	--	--
Oxford Mountain	6800	2/26	14	4.6	8.2	9.0*
Pebble Creek	6550	2/26	15	5.5	11.7	13.0*
Slug Creek Divide	7225	2/27	38	11.2	17.2	--
Somsen Ranch	7000	2/27	26	6.8	10.6	10.9*
Strawberry Creek	5800	2/28	4	1.3	12.0	11.4*
Strawberry-Mink Divide	6800	2/28	20	6.8	21.2	19.8*
Sublett	6000	2/28	7	2.5	10.0	10.5*
Summit Springs	8500	2/28	6	2.1	8.9	--
Whiskey Flat	6900	2/26	14	4.5	--	--
Willow Flat	6100	2/27	10	5.5	14.6	14.6*

**Estimated 1943-57 average. (o) Forecast made by Gregory L. Pearson, SCS, Salt Lake City, Utah. (+) Aerial observation, water content estimated. (a) Assuming normal meteorological conditions. (b) Actual or estimated 1943-57 average. (c) Observed flow corrected for storage in Jackson Lake and Palisades Reservoir. (d) Observed flow corrected for storage in Jackson Lake, Palisades, Island Park, Grassy Lake, Henry's Lake and diversions between Heise and Blackfoot.*

UPPER SNAKE, BLACKFOOT, PORTNEUF, BEAR, MALAD WATERSHEDS



WATER SUPPLY OUTLOOK and SNOW SURVEYS
UPPER SNAKE, HENRY'S FORK, TETON, CAMAS-BEAVER CREEK, LITTLE LOST, BIG LOST, UPPER SALMON WATERSHEDS
IDAHO

as of
MARCH 1, 1963

GENERAL SUMMARY

The water supply outlook in this area varies from poor to fair when stored water is considered. The larger rivers, such as the Snake with good storage facilities, can make up for streamflow deficiencies by heavy drafts on the stored water. Those rivers without adequate storage facilities face the possibility of water shortages in 1963.

Snow cover varies from 32% of normal on the Little Lost River to 67% on the Upper Salmon. The low elevation snow has almost entirely melted off and the higher elevations did not receive normal snowfall during February. South slopes are bare to high elevations on all drainages. This condition is expected to reduce streamflow more than is indicated by the snow course measurements.

Soil moisture measurements show relatively dry soils beneath the snow pack even at the highest elevations. Soil temperatures as measured near March 1st were warmer and close to normal. An unusually heavy amount of snow-water will be absorbed by the dry soil during the major snow-melt this spring.

February runoff was high and on several streams set new records. Reservoir-stored water throughout the area is excellent. The reservoirs on the main stem of the Snake River are in a particularly good condition to make up for deficiencies in streamflow.

Water in general should be used very conservatively to make possible the greatest amount of carry-over for 1964.

WATER SUPPLY OUTLOOK (expressed as "Poor", "Foir" "Averoge" or "Excellent") and STREAMFLOW FORECASTS (1,000 Ac. Ft.) [a]

STREAM and/or FORECAST POINT	OUTLOOK	FORECAST THIS YEAR	FORECAST PERIOD	1943-57 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Snake River nr. Heise		2900	Apr-Sep	4132	70
Henry's Fork nr. Ashton		475	Apr-Sep	632	75
nr. Rexburg		980	Apr-Sep	1318	74
Teton River nr. St. Anthony		270	Apr-Sep	425	64
Big Lost River at Howell Ranch		130	Apr-Sep	199	65
		90	Apr-Jun	139	65
Big Lost River nr. Mackay		114	Apr-Sep	172	66
Little Lost River nr. Howe		25	Mar-Sep	37.5**	67
Salmon River nr. Challis		650	Apr-Sep	959	68
		585	Apr-Jul	839	70

COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF: LAST YEAR	AVERAGE [b]
Snake River ab. Heise	34	56	60
Henry's Fork	3	45	51
Teton River	2-3	47	48
Camas-Beaver Creeks	2	31	35
Little Lost River	5	40	32
Big Lost River	5	62	58
Upper Salmon River	3-7	71	67

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month) THIS YEAR	LAST YEAR	1943-57 AVERAGE
Jackson Lake	847.0	581.7	142.5	465.5
Palisades	1200.0	1003.3	605.3	--
American Falls	1700.0	1482.4	1575.4	1425.8
Island Park	127.0	132.3	84.5	116.7
Grassy Lake	15.2	11.8	8.4	13.0
Mackay	44.2	33.9	22.9	33.8

Report Prepared by
M. W. NELSON AND J. ALDEN WILSON
U.S. DEPARTMENT OF AGRICULTURE --- SOIL CONSERVATION SERVICE
P.O. BOX 1247, BOISE, IDAHO

SOIL MOISTURE

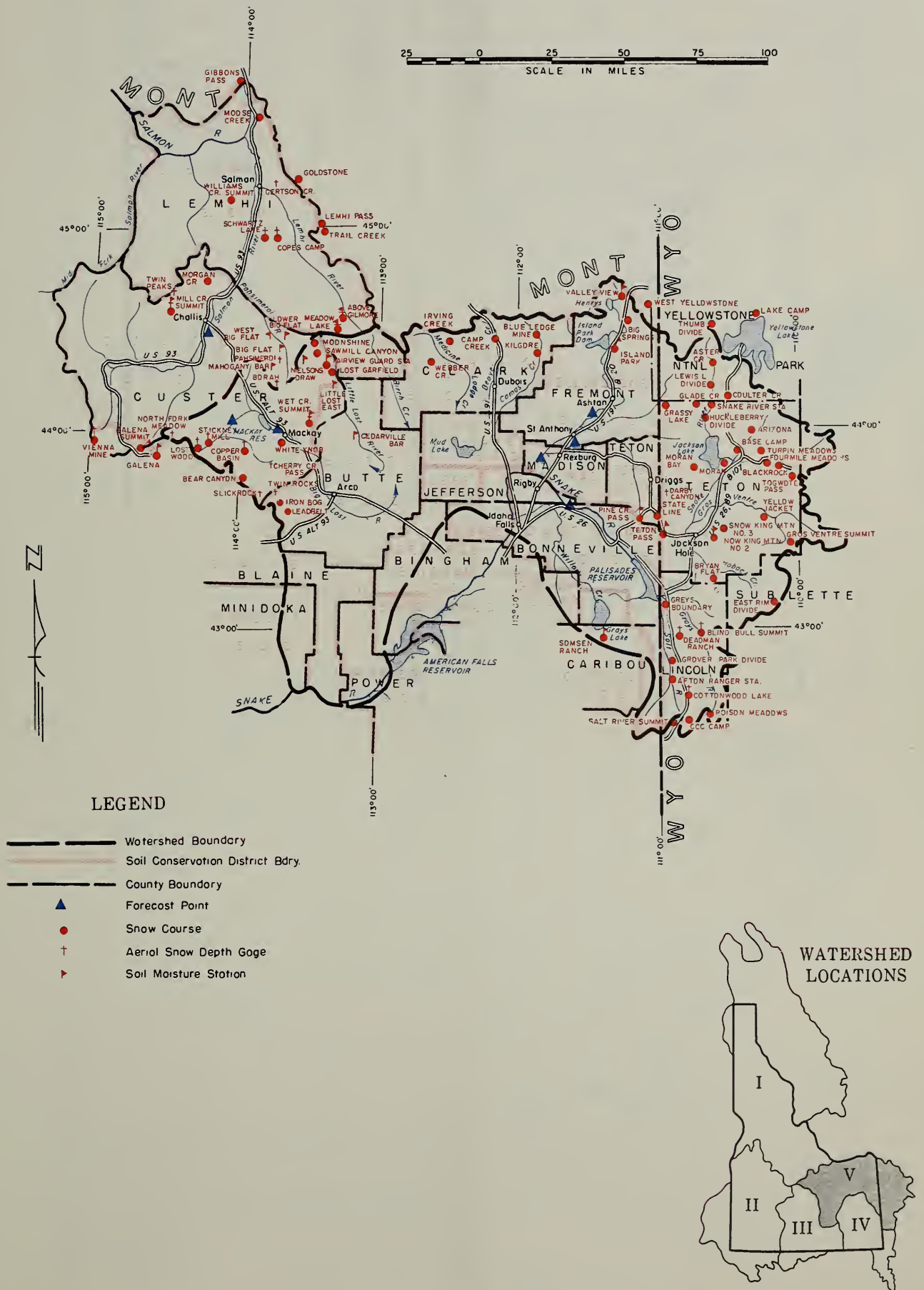
STATION NAME	ELEVATION	PROFILE (Inches) DEPTH	PROFILE (Inches) CAPACITY	SOIL MOISTURE (Inches) DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Above Gilmore	8200	54	5.4	2/28	2.0	--	--
Bell Mountain Bar	6640	18	3.6	2/26	1.2	1.1	--
Big Flat	7050	18	3.6	2/21	1.1	Frozen	--
Cedarville Bar	5400	18	3.0	2/26	1.0	Frozen	--
Fairview Guard Station	5850	42	7.6	2/26	4.4	3.9	--
Island Park	6315	42	9.9	2/27	3.2	--	--
Meadow Lake	9100	48	4.4	2/28	1.7	--	--
Mill Creek Summit	8870	48	8.4	3/3	2.7	--	--
Nielson's Draw	6400	18	3.3	2/26	1.2	1.0	--
Pine Creek Pass	6750	48	13.3	2/25	4.1	--	--
State Line	6400	48	14.8	2/25	4.7	--	--
Teton Pass	8500	48	10.5	2/25	6.9	--	--
Valley View	6500	48	13.3	2/27	4.2	--	--
West Big Flat	6550	18	3.2	2/21	1.0	Frozen	--

SNOW

SNOW COURSE NAME		ELEVATION	CURRENT INFORMATION DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	PAST RECORD WATER CONTENT (Inches) LAST YEAR	1943-57 AVERAGE
Above Gilmore		8200	2/28	25	6.2	8.2	--
Bear Canyon		8600	2/25	37	9.0	16.0	16.6*
Black Canyon		7850	2/26	56	16.2	--	--
Big Springs		6500	2/27	35	9.2	22.8	20.4
Camp Creek		6800	2/26	13	3.0	9.2	9.2
Cherry Creek Pass +		8900	2/26	7	1.6	--	--
Copes Camp		7500	3/1	26	5.0	7.2	--
Copper Basin		8000	2/25	14	4.0	7.3	9.2
Darby Canyon +	Wyo.	8250	2/25	38	11.7	20.3	--
Fairview Guard Sta.		6850	2/26	6	1.2	4.2	5.6*
Galena		7500	2/28	41	11.4	16.7	17.6*
Galena Summit		8795	2/28	51	14.9	19.2	20.3*
Gertson Creek +		8050	3/2	10	2.0	--	--
Iron Bog		7650	2/25	24	6.4	13.3	--
Irving Creek		7035	2/25	10	1.9	5.0	--
Island Park		6315	2/27	31	7.8	17.6	15.8
Kilgore		6200	2/27	15	3.6	12.1	9.5
Latham Springs		7650	2/26	55	15.6	--	--
Leadbelt		6800	2/25	13	4.3	9.2	--
Lost-Garfield		6700	2/26	T	T	3.0	4.9*
Lost-Wood Divide +		8750	2/25	51	14.9	18.9	22.9*
Lucky Dog		6900	2/26	40	12.2	--	--
Meadow Lake		9100	2/28	39	10.8	16.3	--
Mill Creek Summit		8870	3/3	52	13.6	19.0	--
Moonshine		7250	2/27	24	5.0	9.2	11.5*
Moose Creek		6200	2/27	36	8.0	12.6	16.1
Morgan Creek Summit		7580	2/27	34	8.4	--	--
North Fork Meadow +		8150	2/26	21	6.1	12.3	--
Old Road		7250	2/26	46	14.8	--	--
Pine Creek Pass		6750	2/25	29	7.7	16.2	--
Poacher's Cabin		8000	2/26	57	17.8	--	--
Sawmill Canyon		7000	2/27	16	3.2	7.9	9.3*
Schwartz Lake		8500	3/1	35	8.4	10.9	--
Slickrock +		8640	2/26	38	11.1	14.1	--
Somsen Ranch		7000	2/27	26	6.8	10.6	10.9*
State Line		6400	2/25	21	5.9	14.0	13.8
Stickney Mill		7500	2/25	21	5.7	8.4	8.8
Teton Pass	Wyo.	8500	2/25	52	16.0	32.9	32.1*
Twin Peaks +		9190	3/1	45	11.8	--	--
Twin Rocks +		8100	2/26	35	9.3	18.4	--
Valley View		6500	2/27	32	8.4	15.8	13.4*

**Estimated 1943-57 average. (+) Aerial observation, water content estimated. (a) Assuming normal meteorological conditions. (b) Actual or estimated 1943-57 average. (c) Observed flow corrected for storage in Jackson Lake and Palisades Reservoir. (d) Observed flow corrected for storage in Island Park Reservoir and Henry's Lake. (e) Observed flow corrected for storage in Island Park Reservoir, Henry's Lake, Grassy Lake, and diversions between Ashton and Rexburg. (f) Observed flow corrected for storage in Mackay Reservoir and diversion in Sharp Ditch. (**) 1944-1960 average.*

UPPER SNAKE, HENRY'S FORK, TETON, CAMAS - BEAVER CREEK, LITTLE LOST, BIG LOST, UPPER SALMON WATERSHEDS



LEGEND

- Watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- Soil Moisture Station

WATERSHED LOCATIONS

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1943-57 AVERAGE
Vienna Mine +	8900	2/25	69	20.1	29.9	31.4*
Webber Creek	6700	2/25	8	1.1	4.5	--
West Yellowstone Mont.	6700	2/28	23	4.9	15.0	11.3
Wet Creek Summit	8175	2/26	19	4.2	9.4	10.4*
White Knob	7700	2/28	18	4.1	10.3	7.9
Williams Creek Summit	7800	3/2	34	7.9	11.6	12.0*

SNOW SURVEY COURSES
IDAHO
JANUARY 1963

SCALE IN MILES

- Snow course
- Soil moisture station
- Snow course and soil moisture station
- Aerial marker
- Aerial marker and snow course
- Aerial marker, soil moisture and snow course

CANADA

MONTANA

WYO.

NEVADA

UTAH

OREGON

WASHINGTON

IDAHO

BOUNDARY
BONNER
KOOTENAI
BENEWAH
SHOSHONE
LATAH
CLEARWATER
NEZ PERCE
IDAHO
ADAMS
VALLEY
WASHINGTON
PAYETTE
GEM
BOISE
CANYON
ADA
ELMORE
OWYHEE
GOODING
LINCOLN
JEROME
MINIDOKA
TWIN FALLS
CASSIA
POWER
BANNOCK
BINGHAM
BONNEVILLE
JEFFERSON
MADISON
TETON
CLARK
FREMONT
CUSTER
BUTTE
BLAINE
FRANKLIN
BEAR LAKE
LEMHI

Index to IDAHO SNOW COURSES

NO.	STATE	NAME	SEC.	TWP.	RGE.	ELEV.
				LAT. AND LONG.		
		KOOTENAI RIVER				
1KE11	M	Eaves Creek	36	26N	31W	5500
1KE2M	M	Brush Creek	13	30N	26W	5000
1KE	BC	Fergusson	50°25'		11°025'	2900
1KE	BC	Fernie	49°31'		115°01'	3500
1KE	BC	Gerrard	50°33'		12°01'	6000
1KE	BC	Gray Creek	49°37'		116°41'	5100
1KE	BC	Kimberley	49°41'		115°59'	3800
1KE	BC	Marble Canyon	51°12'		116°09'	5000
1KE	BC	Morrissey Ridge	49°30'		115°01'	6100
1KE	BC	Nelson	49°25'		11°014'	3050
1KE	BC	New Fernie	49°30'		115°02'	4100
1KE	M	Red Mountain		30N	29W	6000
1KE	BC	Sanford	49°56'		11°01'	3400
1KE	BC	Sinclair Pass	50°02'		115°58'	4500
1KE	T	Smith Creek	29	64N	3W	4800
1KE	BC	Sullivan Mine	49°51'		116°21'	5100
1KE	BC	Upper Elk River	50°31'		11°-58'	4100
1KE	M	Weasel Divide	5	37N	24W	5450
		PRIEST RIVER				
1KE	I	Benton Meadow	27	58N	4W	2344
1KE	I	Benton Spring	30	58N	3W	4900
		PEND OREILLE - CLARK FORK RIVER				
1KE13	M	Blanx Pine	23	8N	15W	7100
1KE	M	Cherokee Reservoir	2	8N	5W	6200
1KE	M	Copper Creek	1	15N	9W	5700
1KE	M	Cutter Mine	2	15N	9W	6250
1KE	M	Coyote Hill	12	18N	1W	4200
1KE	M	El Dorado Mine	23	8N	12W	7300
1KE	M	Fred Burr Pass	12	6N	13W	8000
1KE	M	Georgetown Lake	6	5N	13W	6450
1KE	M	Gold Creek Lake	14	8N	12W	7200
1KE	M	Hoodoo Creek	9	1N	7W	6000
1KE	M	Interguard	6	5N	13W	6450
1KE	M	Lolo Creek Forest	11	13N	24W	4000
1KE	M	Lolo Creek Forest	11	13N	15W	4100
1KE	M	North Fork Jocko	3	17N	17W	6330
1KE	M	Pipestone Pass	10	1N	7W	7200
1KE	M	Red Lion	27	6N	13W	7100
1KE	M	Silide Rock Mountain	35	10N	16W	7100
1KE	M	Southern Cross	9	5N	13W	6500
1KE	M	Stemple Pass	16	13N	7W	6900
1KE	M	Storm Lake	19	4N	13W	7980
1KE	M	Stuart Mill	19	5N	13W	6500
1KE	M	Temmile Creek, Lower	13	8N	6W	6250
1KE	M	Temmile Creek, Middle	13	8N	4W	6800
1KE	M	Temmile Creek, Upper	19	8N	5W	8000
1KE	M	TV Mountain	33	15N	13W	6800
		BITTERROOT RIVER				
1KE	M	Ashnose	28	9N	15W	6475
1KE	M	East Fork Ranger Station	16	2N	17W	5400
1KE	M	Gibbons Pass	4	2S	17W	7100
1KE	M	Gibbons Pass	4	2S	19W	7100
1KE	M	Lost Horse	5	4N	23W	5340
1KE	M	Nezperce Camp	19	1S	23W	5580
1KE	M	Peaklake Summit	30	6N	17W	7259
1KE	M	Twin Lakes	32	5N	23W	6510
		FLATHEAD RIVER				
1KE	M	Basin Creek	11	19N	12W	5000
1KE	M	Bassoo Peak	11	24N	25W	5150
1KE	M	Big Creek	7	22N	12W	6750
1KE	M	Camp Misery	30	22N	12W	6400
1KE	M	Desert Mountain	24	31N	19W	5600
1KE	M	Fatty Creek	4	22N	12W	5500
1KE	M	Goat Mountain	20	22N	16W	7000
1KE	M	Griffin Creek Divide	11	28N	25W	5150
1KE	M	Hell Roaring Divide	35	32W	22W	5700
1KE	M	Holbrook	18	21N	17W	4530
1KE	M	Kishenehn	14	37N	22W	3836
1KE	M	Logan Creek	31	30N	21W	4300
1KE	M	Marias Pass	34	30N	14W	5250
1KE	M	Mineral Creek	24	35N	17W	4000
1KE	M	Quintonkon	11	26N	17W	3800
1KE	M	Spotted Bear Mountain	23	25N	15W	7000
1KE	M	Strawberry Lake	11	22N	15W	6500
1KE	M	Trinkus Lake	9	25S	17W	6500
1KE	M	Trout Lake	21	28N	17W	3600
1KE	M	Twin Creeks	14	26N	16W	3580
1KE	M	Upper Holland	28	20N	16W	7000
1KE	M	Wrong Ridge	17	25W	10W	6800
		SPOKANE RIVER				
1KE	I	Above Burke	11	48N	5E	4100
1KE	I	Above Roland	35	47N	6E	4350
1KE	I	Below Roland	34	47N	6E	3770
1KE	I	Copper Ridge	6 & 7	50N	1W	4800
1KE	I	Fourth of July Summit	6	49W	1W	3100
1KE	I	Kellogg Peak	19	48N	3E	5560
1KE	I	Lookout	4	47N	6E	5250
1KE	I	Lower Sands Creek	32	51N	1W	3400
1KE	I	Mosquito Ridge	5	54N	2E	5110
1KE	I	Outlaw Creek	19	44N	5E	3750
1KE	I	Roland Summit	24	47N	6E	5200
1KE	I	Sherwin	28 & 33	49N	1E	3200
1KE	I	Sunset	22	49N	5E	5600
		SNAKE RIVER - WYOMING				
1KE	WY	Afton Ranger Station	30	32N	118W	6200
1KE	WY	Arizona	3	46N	115W	6850
1KE	WY	Aster Creek	44°17'		110°38	7700
1KE	WY	Base Camp	20	46N	113W	6900
1KE	WY	Blacktree	4	44N	111W	8600
1KE	WY	Blind Bull	6	34N	115W	8750
1KE	WY	Bryan Flat	9	38W	115W	6250

NO.	STATE	NAME	SEC.	TWP.	RGE.	ELEV.
				LAT. AND LONG.		
1KE	WY	Canyon	44°22'		110°30'	7750
1KE	WY	CCC Camp	9	29N	118W	7500
1KE	WY	Cottonwood Lake	25	31N	118W	7500
1KE	WY	Coulter Creek	44°09'		110°33	7600
1KE	WY	Deadman Ranch	26	34N	116W	6534
1KE	WY	East Rim Divide	32	37N	111W	7950
1KE	WY	Four Mile Meadows	35	45N	112W	7770
1KE	WY	Glade Creek	12	48N	116W	7200
1KE	WY	Greys Boundary	33	37N	118W	5800
1KE	WY	Gros Ventre Summit	36	40N	111W	8750
1KE	WY	Grover Park Divide	27	33N	118W	7500
1KE	Wy	Huckleberry Divide	32	48N	115W	7300
1KE	WY	Lake Camp	44°34'		110°24'	7850
1KE	WY	Lewis Lake Divide	44°13'		110°40'	7900
1KE	WY	Moran	8 & 17	45N	112W	6800
1KE	WY	Moran Bay	14	45N	116W	6800
1KE	WY	Norris Basin	44°44'		110°42'	7500
1KE	WY	Poison Meadows	29	30N	116W	8500
1KE	WY	Salt River Summit	32	29N	118W	7900
1KE	WY	Snake River Station	9	48N	115W	6780
1KE	WY	Snow King Mountain #3	4	40N	117W	7600
1KE	WY	Sylvan Pass	12	52N	110W	7100
1KE	WY	Thumb Divide	44°22'		110°35'	7900
1KE	WY	Togwotee Pass	29	44N	110W	9600
1KE	WY	Turpin Meadows	14	45N	112W	6930
1KE	WY	Yellowjacket	33	42N	112W	7675
		HENRYS FORK RIVER				
1KE	I	Big Springs	34	14N	44E	6500
1KE	I	Black Canyon	11	13N	45E	7250
1KE	I	Black Moose	33	14N	45E	8125
1KE	WY	Grassy Lake	6	48N	117W	7230
1KE	I	Island Park	29	13N	43E	6315
1KE	I	Latham Springs	9	13N	45E	7650
1KE	I	Lucky Dog	2	13N	45E	6900
1KE	I	Old Road	12	13N	44E	7250
1KE	I	Poacher's Cabin	11	13N	45E	8000
1KE	I	Valley View	7	15N	44E	6500
1KE	M	West Yellowstone	34	15S	5E	6700
		TETON RIVER				
1KE	WY	Darby Canyon	28	43N	118W	8250
1KE	I	Pine Creek Pass	24	3S	44E	6750
1KE	I	State Line	32	3N	46E	6400
1KE	WY	Teton Pass	24	41S	118W	8500
		CAMAS - BEAVER CREEK				
1KE	I	Blue Ledge Mine	27	13N	38E	6700
1KE	I	Camp Creek	21	13N	36E	6800
1KE	I	Kilgore	6	12N	39E	6200
		MEDICINE LODGE CREEK				
1KE	I	Irving Creek	8	13N	33E	7035
1KE	I	Webber Creek	23	12N	32E	6700
		BLACKFOOT RIVER				
1KE	I	Austin Brothers Ranch	28	7S	43E	6450
1KE	I	China Hat	17	7S	42E	6300
1KE	I	Slug Creek Divide	15	10S	44E	7225
1KE	I	Sommen Ranch	25	5S	43E	7000
		PORTNEUF RIVER				
1KE	I	Dempsey Creek	17	10S	38E	6280
1KE	I	Lower Dempsey	5	10S	38E	5210
1KE	I	Lower Pebble	7	8S	38E	5800
1KE	I	Mink Creek	33	7S	34E	6300
1KE	I	Pebble Creek	34	7S	37E	6550
		RAFT RIVER				
1KE	I	Boy Scout Camp	12	14S	23E	7600
1KE	U	Clear Creek Meadows	26	14N	14W	9050
1KE	I	Conner Pass	35	12S	25E	5700
1KE	I	Howell Canyon	7	13S	24E	8000
1KE	U	One Mile Summit	19	14N	14W	7330
1KE	I	Sheep Hollow	4	14S	24E	6200
1KE	I	Sublett	8	12S	30E	6000
1KE	I	Summit Springs	15	13S	30E	8500
		GOOSE - TRAPPER CREEK				
1KE	I	Badger Gulch	24	15S	19E	6660
1KE	I	Bostetter Ranger Station	35	14S	19E	7500
1KE	I	Trapper Creek	2	15S	20E	5300
1KE	U	Vz Pont	17	14N	17W	7670
		SALMON FALLS CR. - BRUNEAU RIVER				
1KE	M	Bear Creek	31	46N	58E	7800
1KE	I	Cedar Creek	25	14S	13E	7000
1KE	I	Deadline	25	14S	18E	6900
1KE	M	Fox Creek	33	46N	58E	6800
1KE	M	Goat Creek	31	46N	60E	8800
1KE	M	Hummingbird Springs	6	45N	60E	8965
1KE	M	Jakes Creek	6	42N	62E	7000
1KE	I	Magic Mountain	14	14S	18E	6700
1KE	I	Patrick Ranch	23	15S	12E	5720
1KE	M	Pole Creek Ranger Station	13	46N	59E	8330
1KE	M	Red Point	15	47N	61E	7940
1KE	M	Seventy Six Creek	6	44N	58E	7100
1KE	I	Shoshone Basin	24	14S	17E	5740
1KE	I	Wilson Creek	24	16S	12E	7500
		LITTLE LOST RIVER				
1KE	I	Cedarville Bar	31	7N	28E	5400
1KE	I	Fairview Guard Station	27	12N	26E	6750
1KE	I	Little Lost East	36	11N	26E	6640
1KE	I	Lost-Garfield	3	11N	26E	6600
1KE	I	Moonshine	31	13N	26E	7450
1KE	I	Nielson's Drew	26	11N	25E	6400
1KE	I	Sawmill Canyon	17	12N	26E	6900
1KE	I	Wet Creek Summit	15	8N	25E	8175

NO.	STATE	NAME	SEC.	TWP.	RGE.	ELEV.
				LAT. AND LONG.		
		BIG LOST RIVER				
1KE	I	Bear Canyon	26	5N	21E	8600
1KE	I	Cherry Creek Pass	2	5N	23E	8900
1KE	I	Copper Basin	24	6N	21E	8000
1KE	I	Iron Bog	23	4N	22E	7650
1KE	I	Leadbelt	34	4N	23E	6800
1KE	I	Lost Wood Divide	19	6N	19E	8750
1KE	I	North Fork Meadow	20	7N	18E	8150
1KE	I	Silickrock	17	4N	22E	8640
1KE	I	Silickney Mill	9	6N	19E	7500
1KE	I	Twin Rocks	22	4N	22E	8100
1KE	I	White Knob	25	7N	23E	7700
		BIG WOOD RIVER				
1KE	I	Dollar Ride Summit	16	3N	15E	8650
1KE	I	Galena	3	6N	15E	7300
1KE	I	Galena Summit	33	7N	15E	8095
1KE	I	Graham Ranch	10	5N	17E	6700
1KE	I	Mascot Mine	8	4N	20E	7900
1KE	I	Mount Baldy	26	4N	17E	9000
1KE	I	Soldier Ranger Station	19	2N	14E	6100
		LITTLE WOOD RIVER				
1KE	I	Garfield Ranger Station	11	3N	21E	6650
1KE	I	Iron Mine Creek	32	3N	23E	6700
1KE	I	Muldoon	25	3N	21E	6300
1KE	I	Niggerhead	26	4N	20E	5400
1KE	I	Porcupine	30	4N	21E	6350
1KE	I	Swede Peak	4	3N	21E	7650
1KE	I	Telfer Ranch	19	2N	22E	6000
		BOISE RIVER				
1KE	I	Atlanta Summit	29	5N	11E	7400
1KE	I	Bad Bear	35	7N	6E	5950
1KE	I	Bennett Mountain	[illegible]	4S	9E	6650
1KE	I	Bogus Basin Road	32	4N	3E	5360
1KE	I	Bogus Basin Road	36	5N	2E	4830
1KE	I	Camas Creeks Divide	11	2S	4E	5720
1KE	I	Couch Summit	9	2N	14E	6460
1KE	I	Dunsain	17	1N	7E	5650
1KE	I	Deadman Gulch	24	7N	3E	6400
1KE	I	Dixie Hill	13	2S	8E	5200
1KE	I	Jackson Peak	7	8N	4E	7000
1KE	I	Little Camas Flat	21	1S	9E	4950
1KE	I	Long Tom	19	1S	8E	5400
1KE	I	Moores Creek Summit	19	7N	7E	6100
1KE	I	Prairie	13	4N	7E	5600
1KE	I	Road Creek	5	5N	8E	6800
1KE	I	Trinity Mountain	7	3N	9E	7400
1KE	I	Willow Creek Cabin	26	1N	6E	4710
		OWYHEE RIVER				
1KE	I	Antelope Ridge	2	8S	1E	5400
1KE	O	Barren Valley	26	27S	38E	4200
1KE	I	Battle Creek	10	11S	1E	5400
1KE	M	Big Bend	31	45N	5E	6100
1KE	O	Blue Mountain Pass (Basque)	4	36S	42E	5250
1KE	I	Bull Basin	29	1S	4W	5400
1KE	N	Disaster Peak	8	47N	34E	4800
1KE	O	Fish Creek	4	33S	33W	4600
1KE	O	Folly Farm Summit	8	30S	38E	4450
1KE	N	Fry Canyon	31	43N	54E	6700
1KE	N	Gold Creek	31	41N	56E	6600
1KE	N	Granite Peak	22	44N	34E	7830
1KE	I	Hyde Pasture	SE¼ 31	8S	2W	5800
1KE	N	Jacks Peak	28	42N	53E	8425
1KE	O	Jordan Valley	2	30S	46E	4300
1KE	N	Laurel Draw	20	45N	53E	6100
1KE	O	Lookout Butte	2	40S	47E	5600
1KE	O	Louse Canyon	27	40S	44E	6440
1KE	N	Lower Buckskin	25	45N	39E	6700
1KE	N	Lower Jack Creek	18	44N	53E	6800
1KE	N	Martin Creek	18	44N	4E	6900
1KE	N	Midas	18	39N	46E	7200
1KE	:	Mud Flat	34	9S	2W	5400
1KE	O	Oregon Canyon	9	40S	4E	4950
1KE	N	Quinn Ridge	9	47N	41E	6300
1KE	I	Red Canyon	32	11S	4E	6650
1KE	N	Rodeo Flat	36	43N	52E	6800
1KE	I	Silver City	6	5S	3W	6200
1KE	O	Silvies	35	32S	33E	6900
1KE	I	South Mountain	35	7S	5W	6300
1KE	I	Succor Creek	25	3S	5W	6100
1KE	N	Taylor Canyon	35	39N	53E	6200
1KE	N	Tremewan Ranch	7	39N	55E	5750
1KE	M	Triangle	NE¼ 25	7S	3W	5150
1KE	O	Trout Creek	10	41S	38E	7800
1KE	N	Upper Buckskin	11	45N	39E	7250
1KE	N	Upper Jack Creek	9	42N	53E	7250
1KE	O	[illegible] Lake	31	35½S	32 W/4E	6600
		PAYETTE RIVER				
1KE	I	Big Creek Summit	24	15N	5E	6604
1KE	I	Bogus Basin	16	5N	3E	6120
1KE	I	Cozy Cove	19	11N	7E	5400
1KE	I	Crawford Ranger Station	21	14N	4E	4800
1KE	I	Deadwood Airstrip	8	11N	7E	5240
1KE	I	Deadwood River Dam	8	11N	7E	5440
1KE	I	Deadwood Summit	23	14N	7E	5240
1KE	I	Greenfield Flat	1	13N	7E	7000
1KE	I	High Valley Summit	9	10N	2E	7370
1KE	I	Lake Fork	3	18N	4E	5170
1KE	I	Rock Flat Summit	1	16N	2E	6000
1KE	I	Squaw Meadow	5	21N	4E	5200
1KE	I	Tripod Summit	17	11N	3E	5200
		WEISER RIVER				
1KE	I	Boulder Creek	15	20N	1W	5500
1KE	I	Mica Ridge	15	15N	2E	6800
1KE	I	Squaw Flat	32	17N	2W	6200
1KE	I	Placer Creek	15 & 16	17N	3W	6000

NO.	STATE	NAME	SEC.	TWP.	RGE.	ELEV.
				LAT. AND LONG.		
		SALMON RIVER				
1KE	I	Above Allmore	33	13N	26E	8200
1KE	I	Big Flat	25	11N	23E	7950
1KE	I	Borah	23	1 N	23E	9250
1KE	I	Chapman Creek	14	24N	2E	6215
1KE	I	Copper Camp	36	18N	22E	7350
1KE	I	Cortez Creek	22	22N	1E	6440
1KE	I	Gold Stone	11	8S	14E	7400
1KE	I	Johns Creek	9	24N	2E	3645
1KE	M	Lemhi Pass	6	19S	11W	7480
1KE	I	Lower Big Flat	31	12N	24E	6540
1KE	I	Mahogany Bar	1	2 N	23E	7240
1KE	I	Meadow Lake	24	23N	26E	9100
1KE	I	Mill Creek Summit	8	13N	17E	8200
1KE	I	Moose Creek	30 & 26	27E	21E	6800
1KE	I	Patterson	[illegible]	2 N	24E	7600
1KE	I	Schwartz Lake	34	18N	22E	8150
1KE	M	Trail Creek	5	10S	14W	7090
1KE	I	Twin Basin	24	15N	10E	8200
1KE	I	Vienna Mine	32	6N	14E	8800
1KE	I	West Big Flat	35	12N	23E	6450
1KE	I	Whitebird Summit	17	24N	2E	4300
1KE	I	Williams Creek Summit	34	21N	20E	7800
		CLEARWATER RIVER				
1KE	I	Above Greer	14	35N	2E	3240
1KE	I	Bryan	11	35N	3E	3100
1KE	I	Cayuse Airstrip	4	34N	11E	3700
1KE	I	Coolwater Mountain	34	33N	8E	6200
1KE	I	Fish Lake Airstrip	35	35N	11E	5000
1KE	I	Fuel	1	36N	5E	3450
1KE	I	Forest	1	32N	3W	4450
1KE	I	Forty-nine Meadows	6	43N	5E	5000
1KE	I	Forest Summit	13	35N	2E	3000
1KE	I	Headwater Butte	12	36N	6E	5500
1KE	I	Elk Camp Pasture	4	37N	10E	4700
1KE	W	Lolo Pass	[illegible]	1 N	22E	5230
1KE	I	McFann	26	33N	3E	4300
1KE	I	Midway	14	35N	2E	3200
1KE	M	Nezperce Pass	25	1S	2E	6975
1KE	I	Norgrande Mountain	14	27N	6E	7400
1KE	I	Pierce Ranger Station	2	36N	5E	3151
1KE	I	Powell Ranger Station	33	37N	11E	4230
1KE	I	Savage Pass	[illegible]	31N	15E	6600
1KE	I	Shanghai Summit	7	37N	6E	6600
1KE	I	Sweeney	1	32N	5E	4435
		PALOUSE RIVER				
1KE	I	Clearwater Creek	14	41N	5W	3500
1KE	I	East Twin	13	[illegible]	5W	4200
1KE	I	Hammond Creek	[illegible]	[illegible]	5W	3500
1KE	I	Moscow Mountain	[illegible]	40N	4W	4800
1KE	I	West Twin	[illegible]	41N	5W	4200
		BEAR RIVER				
1KE	Wy	Big Para	[illegible]	27N	117W	8700
1KE	I	Cokeville Summit	25	13S	41E	8600
1KE	I	Dry River Ranger Station	[illegible]	14S	41E	8400
1KE	WY	Dry Creek Pass	14	[illegible]	[illegible]	8230
1KE	I	Emigrant Summit	21	12S	42E	7350
1KE	I	Emigration Canyon South	24	12S	44E	6600
1KE	I	Franklin Basin	1	16S	41E	8000
1KE	I	Garden City Summit	35	14N	4E	7600
1KE	U	Goodman Ranch	1	3N	1E	7300
1KE	U	Hayden Peak	1	1S	1E	9300
1KE	Wy	Kelly Ranger Station	13	46N	116W	8100
1KE	U	Monte Cristo R. S.	1	1N	4E	8960
1KE	W	Piney LaBarge R	19	[illegible]	114W	8820
1KE	I	Stillwater Camp	32	1N	1E	6140
1KE	I	Strawberry Mink Divide	14	13S	41E	6800
1KE	I	Strawberry Creek	6	13S	41E	5800
1KE	I	Willow Flat	2	14S	41E	6100
		MALAD RIVER				
1KE	I	Dry Creek Flat	3	13S	3?E	6350
1KE	I	Oxford Mountain	32	14S	3?E	6800
		MONTPELIER CREEK				
1KE	I	Alvard	35	11S	43E	6640
1KE	I	Alvard Pass	[illegible]	14S	43E	7025
1KE	I	Jensen Ranch	14	12S	43E	6580
1KE	I	Little Beaver	26	11S	43E	6700
1KE	I	Montpelier Creek	22	12S	46E	6570
1KE	I	Whiskey Flat	26	11S	43E	6765

LEGEND

Numbering System (example)

10J7 — SNOW COURSE ONLY.

10J7P — SNOW COURSE AND PRECIPITATION GAGE.

10J7M — SNOW COURSE AND SOIL MOISTURE STATION

10J7A — SNOW COURSE AND AERIAL MARKER.

10J7AM — SNOW COURSE, SOIL MOISTURE STATION AND AERIAL MARKER

10J7MP — SNOW COURSE, SOIL MOISTURE STATION AND PRECIPITATION GAGE

10J7M — SOIL MOISTURE STATION ONLY.

10J7A — AERIAL MARKER ONLY.

10J7G — STORAGE PRECIPITATION GAGE ONLY

Agencies Assisting with Snow Surveys, etc.

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests, and Water Resources, British Columbia
Department of Resources and Development, Water Resources Division

States:

Idaho State Reclamation Engineer and Corps of State Watermasters
State of Idaho Department of Fish and Game
University of Idaho
Idaho State College
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and Corps of State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

U. S. Army Engineers

U. S. Department of Agriculture
Forest Service
Agricultural Research Service

U. S. Department of Commerce
Weather Bureau

U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company
Washington Water Power Company
Idaho Power Company
Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Boise Project Board of Control
Little Wood River Irrigation District
Jordan Valley Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Twin Lakes Irrigation Company
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control

PRIVATE CORPORATIONS

Amalgamated Sugar Company

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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"The Conservation of Water begins with the Snow Survey"